



GeoInsight[®]

Environmental Strategy & Engineering

Practical in Nature

September 21, 2007

GeoInsight Project 2491-001

Frank Gardner
U.S. Environmental Protection Agency
One Congress Street, Suite 1100-HBR
Boston, Massachusetts 02114-2023

Wells G + H
2.6

RE: Thirty Ninth Progress Report
Administrative Order on Consent for Removal Action
Wells G&H Superfund Site
Olympia Nominee Trust Property
60 Olympia Avenue
Woburn, Massachusetts
CERCLA Docket # 01-2004-0059

Dear Mr. Gardner:

GeoInsight, Inc. (GeoInsight) prepared this progress report to describe activities completed at 60 Olympia Avenue in Woburn, Massachusetts (the Site) during the thirty ninth progress report period (August 21, 2007 to September 21, 2007). This report was prepared in accordance with the June 21, 2004 United States Environmental Protection Agency (USEPA) Administrative Order on Consent for Removal Action (CERCLA Docket No. 01-2004-0059; the "Order"). The report was prepared by GeoInsight at the request of Olympia Nominee Trust, current owner of the 60 Olympia Avenue property.

Please find the attached Work Plan Implementation Schedule (the "Schedule"). The status of specific tasks is presented below.

Ground Water Sampling Event

A ground water sampling event was not performed during this monitoring period. Additional focused ground water sampling activities are proposed for October 2007.

As part of the additional assessment activities that were described in the Scope of Work (SOW) that was submitted to USEPA on November 28, 2006, a focused ground water sampling event was performed on June 18, 2007 for the area between the southern corner of the containment cell and the City of Woburn and Massachusetts Water Resources Authority (MWRA) sewer lines. The June 18, 2007 ground water sampling event included monitoring wells GEO-8 and GEO-9 that were installed as part of the SOW assessment activities performed between May 14



and May 18, 2007, and existing monitoring wells GEO-6, GEO-7, MW-013, MW-14S, MW-213S, and MW-213M.

Laboratory analytical data for volatile organic compounds (VOCs) for the June 18, 2007 sampling event are summarized in the attached table and laboratory analytical reports for VOCs and additional laboratory analyses are attached. Tabulated data for additional laboratory analyses (i.e., including inorganic analyses) will be forwarded to the USEPA after a quality assurance review of these data is completed.

Focused Liquid Permanganate Injection

A focused sodium permanganate injection event was performed to target the central portion of the containment cell in the vicinity of monitoring wells (MW-204D, MW-205D, MW-206D, and MW-212S) that have not been observed to contain permanganate and the area near MW-208D. Since the initial injections in 2005, MW-208D has been observed to contain permanganate in the range of 0.0025% to 0.01%. However, recently MW-208D has been observed to be "clear" and exhibit a solvent odor.

On September 5, 2007, one day prior to the sodium permanganate injection event, four 55-gallon drums of 40 percent sodium permanganate were delivered to the Site, and stored inside the containment cell.

On September 6, 2007, GeoInsight conducted a focused sodium permanganate injection event at the Site. GeoInsight injected the contents of four 55-gallon drums of sodium permanganate into 12 injection wells located inside the containment cell. The 40 percent sodium permanganate solution was diluted prior to injection to concentrations that ranged from 10 to 20%. Sodium permanganate was injected under pressure into eight recently installed K-series injection wells (K1 through K8). Each K-series injection well received between 9 and 103 gallons of sodium permanganate solution, equivalent to approximately 2 to 44 gallons of 40 percent sodium permanganate.

Additionally, a 20 percent solution of sodium permanganate was injected using gravity drainage into injection wells F6, G3, G4, and H5. Each of these four injection wells received between 42 and 62 gallons of 20 percent sodium permanganate solution, equivalent to approximately 21 to 31 gallons of 40 percent sodium permanganate.

Permanganate Monitoring

To monitor the effect of the focused permanganate injection, permanganate monitoring was performed September 12, 2007. Permanganate monitoring was performed for 25 monitoring wells located inside the containment cell (including the MW-200 series monitoring wells) and three monitoring well located outside the containment cell (including MW-218S, MW-218M, and MW-218D). Water in the monitoring wells was collected using a peristaltic pump with clear tubing and visually examined.



The presence of permanganate was not observed at monitoring well locations outside of the containment cell during this reporting period. Permanganate was observed at monitoring well locations inside the containment cell during this reporting period except for monitoring wells MW-203D, MW-205D, MW-206D, MW-209S, MW-210S, MW-211S, and MW-212S. Additional permanganate monitoring activities are proposed for October 2007.

Please contact us at 978-692-1114 if you have questions or would like to discuss this project.

Sincerely,
GEOINSIGHT, INC.

A handwritten signature of Christene A. Binger.

Christene A. Binger
Senior Hydrogeologist

A handwritten signature of Michael J. Webster, P.G., L.S.P.

Michael J. Webster, P.G., L.S.P.
Senior Associate

cc: Chub Whitten, Olympia Nominee Trust
David P. Rosenblatt, Esq., Burns & Levinson LLP

Attachments:

Work Plan Implementation Schedule
Table 1 – Summary of Ground Water Analytical Data – Primary VOCs
Laboratory Analytical Reports



WORK PLAN IMPLEMENTATION SCHEDULE
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

TASK DESCRIPTION	SCHEDULE
Permits Submit permit application to Massachusetts Water Resources Authority (MWRA) to drive sheet pile and continue construction activities. MWRA Approval	Completed October 2004 October 26, 2004
Site Preparation Bridge Enhancements for Sheet Pile Crane Brush Clearing	Completed November 2004
Sheet Pile Installation	Completed January 2005
Injection Well and Trench Installation Trenching Horizontal Wells (5 days) Drilling Vertical Wells (10 days)	Completed January 2005
Monitoring Well Installation Additional Injection Wells	Completed February 2005 Completed August 2005
Installation of Liquid Permanganate Delivery System Staging Area for Permanganate Storage	Completed May 2005
Delivery of Permanganate (70 drums total) Delivery of Permanganate (70 drums total) Delivery of Permanganate (21 drums total)	May 11, 2005 and June 10, 2005 October 7, 2005 and October 28, 2005 December 2, 2005
Up to 20 Injection Events - Dependent on Site Monitoring (1,000 gallons of 40 percent NaMnO ₄ per event)	1 st Injection: September 1, 2005 (Trench) 2 nd Injection: September 15, 2005 (Trench) 3 rd Injection: September 29, 2005 (Wells) 4 th Injection: October 13, 2005 (Trench) 5 th Injection: November 3, 2005 (Wells) 6 th Injection: November 10, 2005 (Trench) 7 th Injection: November 22, 2005 (Wells) 8 th Injection: December 20, 2005 (Wells/Trench)



WORK PLAN IMPLEMENTATION SCHEDULE
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

TASK DESCRIPTION	SCHEDULE
Ground Water Monitoring 2005 Baseline Comprehensive Sampling Event	April 13 and 14, 2005
Focused Sampling Events	September 13, 2005 January 11, 2006 February 9, 2006 March 10, 2006
2006 Comprehensive Sampling Event	April 24, 25, and 26, 2006
Focused Sampling Events	July 19, 2006 August 31, 2006 September 28, 2006 October 30, 2006 December 14, 2006 March 28, 2007
2007 Comprehensive Sampling Event	April 24, 25, 26, 2007
Focused Sampling Events	Scheduled: October 2007
Additional Assessment Activities included in November 28, 2006 Scope of Work	
Subsurface Investigation Activities	May 14 to 18, 2007
Focused Ground Water Sampling Event	June 18, 2007
Focused Injection Event (220 gallons of 40 percent NaMnO ₄)	September 6, 2007

TABLE I
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1-TCA	1,1-DCE	cis-1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro- trifluoroethane
			5	5	200	7	70	2	5	10,000	NA
INSIDE CONTAINMENT CELL											
OL-002 OL-002 (Field Dup D0224W)	12/15/87	4-9'	41	3,100	ND	—	—	—	—	170	—
	12/15/87		33	3,400	ND	—	—	—	—	140	—
	09/16/97		8	3,700	1	—	3	<1	13	79	—
	03/20/02		<120	7,900	<600	<120	<120	<120	<120	<600	400 (J)
	03/20/02		<120	8,000	<600	<120	<120	<120	<120	<600	380 (J)
	04/22/03		3	91	<1	<1	4	<1	<1	<1	—
	06/02/03		<5	330	<5	<5	17	<5	<5	<5	—
	04/14/05		<50	3,200	<50	<50	76	<100	<130	—	—
	07/09/02	21.5-31.5'	<0.100	5	<10	<0.100	<2	<0.100	0.0911 (J)	<10	<10
	06/02/03		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	—
OL-2M OL-2M (DCP-3)	04/14/05		<1	<1	<1	<1	<2	<1	<1	—	—
	01/11/06		<25	1,600	<25	<25	<25	<25	<2	<25	—
	02/09/06		<250	22,000	<250	<250	<250	<250	<250	1,310	5,300
	03/10/06		<25	1,800	<25	<25	<25	<25	<25	<25	290
	04/24/06		<5	400	<5	<5	<5	<5	<5	<5	<50
	04/24/06		<5	430	<5	<5	<5	<5	<5	<5	<50
	07/19/06		1	80	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	25
	08/31/06		<1	34	<1	<1	<1	<1	<1	<1	11
	09/28/06		0.7	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	12
	12/14/06		0.8	37	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	23
GEO-4	03/28/07		6	260	<5	<5	<5	<5	<5	<5	400
	04/24/07		<10	690	<10	<10	<10	<10	<10	32	710
	06/24/03	6-16'	<5	340	<5	<5	<5	<5	<5	<5	—
	04/14/05		<50	2,500	<50	<50	<50	<100	<50	—	—
TEST-1 TEST-1 (Field Dup D02947) TEST-1 (DUP-5)	07/19/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	07/09/02	1.8-16.8'	14	12,000	<10	<2	15	2	62	150	400 (J)
	07/09/02		15	12,000	<10	<2	15	2	64	160	410 (J)
	06/02/03		3	1,300	<2.5	<2.5	130	3	5	<2.5	170
	06/24/03		<5	400	<5	<5	53	<5	<5	5	—
TEST-1 (DUP-5)	04/14/05		<50	3,500	<50	<50	390	<100	<50	—	—
	04/14/05		<50	3,600	<50	<50	400	<100	<50	—	—
OL-003	12/15/87	4-9'	45	180	ND	—	23	ND	ND	ND	—
	09/16/97		5	94	<1	—	280	95	4	300	—
	03/18/02		0.508 (J)	13	<10	<0.100	57	16	0.796 (J)	4 (J)	27 (J)
	06/02/03		0.8	2	<0.5	<0.5	11	7	<0.5	9	—
	04/13/05		<25	930	<25	<25	480	77	<25	—	—
OL-3M	07/10/02	21.5-31.5'	<0.100	0.191	<10	<0.100	<2	<0.100	<0.100	<10	<10
	06/02/03		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	—
	04/13/05		<1	<1	<1	<1	<1	<2	<1	—	—
GEO-3	06/24/03	6-16'	<0.5	4	<0.5	<0.5	49	35	<0.5	65	—
MW-200S	04/14/05	6.5-9.5'	<200	14,000	<200	<200	<200	<400	<200	—	—
MW-200D	04/14/05	14-17'	<25,000	870,000	<25,000	<25,000	<25,000	<25,000	<25,000	136,000	<250,000
MW-200D (Dup)	04/14/05		<25,000	770,000	<25,000	<25,000	<25,000	<25,000	<25,000	25,000	<250,000
MW-201S	04/14/05	6.5-9.5'	<5	330	<5	<5	<5	<10	<5	—	—
MW-201D	04/14/05	14-17'	<1	11	<1	<1	<1	<2	<1	—	—
MW-202S	04/14/05	6.5-9.5'	<100	6,200	<100	<100	<100	<200	<100	—	—
MW-202D	04/14/05	14-17'	<2,000	89,000	<2,000	<2,000	<2,000	<4,000	<2,000	—	—
MW-203S	04/14/05	3-6'	<10	500	<10	<10	<10	<20	<10	—	—
MW-203S	04/25/07		<0.5	3	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	23
MW-203D	04/14/05	14-17'	<500	42,000	<500	<500	<500	<1,000	<500	—	—
	08/31/06		<250	24,000	<250	<250	<250	<250	<250	1,640	7,200
	12/14/2006		120	<5	<5	<5	<5	<5	17	<5	6,500 D

TABLE 1
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis-1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro-trifluoroethane
			5	5	200	7	70	2	5	10,000	NA
INSIDE CONTAINMENT CELL (continued)											
MW-204S	04/14/05	7-10'	<50	2,400	<50	<50	280	<100	<50	--	--
MW-204S (DUP-8)	04/14/05		<50	2,200	<50	<50	250	<100	<50	--	--
MW-204D	04/14/05	14-17'	<1,000	60,000	<1,000	<1,000	<1,000	<1,000	<1,000	--	--
	04/25/06		<2,500	190,000	<2,500	<2,500	<2,500	<2,500	<2,500	3,200	<25,000
	07/19/06		<2,500	160,000	<2,500	<2,500	<2,500	<2,500	<2,500	4,800	<25,000
	08/31/06		<2,500	220,000	<2,500	<2,500	<2,500	<2,500	<2,500	6,600	<25,000
	09/28/06		<2,500	210,000	<2,500	<2,500	<2,500	<2,500	<2,500	5,400	<25,000
	04/25/07		<5,000	260,000	<5,000	<5,000	<5,000	<5,000	<5,000	7,800	<50,000
MW-205S	04/13/05	4-7'	<1	12	<1	<1	4	<1	<1	---	--
	10/30/2006*		<0.5	2	<0.5	<0.5	8	<0.5	2	<0.5	10
MW-205D	04/13/05	14-17'	<500	16,000	<500	<500	<500	<1,000	<500	--	--
	04/26/06		<1,000	61,000	<1,000	<1,000	<1,000	<1,000	<1,000	2,400	<10,000
	07/19/06		<2,500	98,000	<2,500	<2,500	<2,500	<2,500	<2,500	6,800	<25,000
	08/31/06		<2,500	110,000	<2,500	<2,500	<2,500	<2,500	<2,500	8,700	<25,000
	09/28/06		<2,500	120,000	<2,500	<2,500	<2,500	<2,500	<2,500	9,000	<25,000
	10/30/06		<1,000	120,000*	<1,000	<1,000	<1,000	<1,000	<1,000	12,200	21,000
	04/25/07		<2,500	120,000	<2,500	<2,500	<2,500	<2,500	<2,500	7,600	<25,000
MW-206S	04/14/05	4-7'	<100	8,200	<100	<100	130	<200	<100	---	--
MW-206D	04/14/05	14-17'	<25	<25	<25	<25	70	<50	<25	--	--
	04/26/06		<1,000	81,000	<1,000	<1,000	<1,000	<1,000	<1,000	2,800	<10,000
	07/19/06		<1,000	73,000	<1,000	<1,000	<1,000	<1,000	<1,000	5,000	11,000
	08/31/06		<1,000	78,000	<1,000	<1,000	<1,000	<1,000	<1,000	5,800	13,000
	09/28/06		<1,000	87,000	<1,000	<1,000	<1,000	<1,000	<1,000	6,300	13,000
	04/25/07		<1,000	83,000	<1,000	<1,000	<1,000	<1,000	<1,000	4,100	<10,000
MW-207S	04/13/05	6-9'	110	3,700	<50	<50	1,700	320	<50	--	--
	12/14/2006*		<10	550	<10	<10	150	<10	<10	<10	330
MW-207D	04/14/05	14-17'	<100	7,900	<100	<100	<100	<200	<100	--	--
MW-207D (DUP-7)	04/14/05		<100	8,100	<100	<100	<100	<200	<100	---	--
MW-208S	04/14/05	4-7'	<25	1,100	<25	<25	1,300	95	<25	--	--
MW-208D	04/14/05	14-17'	<500	38,000	<500	<500	<500	<500	<500	--	--
	12/14/2006*		<2,500	170,000	<2,500	<2,500	<2,500	<2,500	<2,500	5,200	37,000
MW-209S	04/13/05	7-10'	<10	520	<10	<10	1,200	270	<10	---	--
MW-209D	04/13/05	14-17'	<25	1,600	<25	<25	<25	<50	<50	---	--
MW-210S	04/13/05	7-10'	<50	730	<50	<50	3,500	1,100	<50	--	--
MW-210D	04/14/05	14-17'	<25	650	<25	<25	1,900	<50	<25	--	--
MW-211S	04/14/05	6.5-9.5'	<2	39	<2	<2	140	27	<2	---	--
	12/14/06		<0.5	1	<0.5	<0.5	2	0.6	0.8	<0.5	8
	04/25/07		<0.5	1	<0.5	<0.5	0.7	<0.5	0.6	<0.5	9
MW-211D	04/14/05	14-17'	<5	83	<5	<5	150	<10	<5	--	--
MW-212S	04/14/05	10-13'	450	360	<10	<10	12	<20	<10	---	--
	04/26/06		1,200	2,300	<25	<25	<25	<25	<25	<25	340
	08/31/06		1,300	2,200	<25	<25	39	<25	<25	<25	490
	09/28/06		240	1,000	<25	<25	310	<25	<25	<25	<250
	10/30/06		1,300	1,900	<25	<25	42	<25	<25	<25	360
	04/26/07		1,200	1,800	<25	<25	68	<25	<25	<25	440

TABLE I
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis-1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro-trifluoroethane
			5	5	200	7	70	2	5	10,000	NA
GROUND WATER STANDARDS											
DEEP OVERBURDEN WELLS											
GEO-1	09/21/99 03/18/02 09/13/05 01/11/06 04/24/06 04/24/07	90-100'	<1.5 0.104 <0.5 <0.5 <0.5 <0.5	2.5 0.244 <0.5 <0.5 <0.5 <0.5	<1 <100 <0.5 <0.5 <0.5 <0.5	<1.5 <2 <0.5 <0.5 <0.5 <0.5	<1 <100 <0.5 <0.5 <0.5 <0.5	<1.5 <0.100 <0.5 <0.5 <0.5 <0.5	<1 <10 <0.5 <0.5 <0.5 <0.5	<1 <10 <0.5 <0.5 <0.5 <0.5	— 10 (UJ) — — — —
GEO-2	09/21/99 03/15/02	95-105'	<1.5 <0.100	1.6 0.175	<1 <10	<1.5 <100	<1 <2	<2 <0.100	<1.5 <0.100	<1 <10	— — — — — —
OUTSIDE CONTAINMENT CELL											
UPGRADIENT											
OL-005	12/15/87 03/19/02 06/02/03 04/14/05 04/25/06 04/24/07	3.5-8.5'	ND <0.100 <0.5 <1 <0.5 <0.5	ND <0.100 <0.5 <1 <0.5 <0.5	ND <10 <0.5 <1 <0.5 <0.5	— <0.100 <0.5 <1 <0.5 <0.5	— <2 <0.5 <1 <0.5 <0.5	— <0.100 <0.5 <1 <0.5 <0.5	— <0.100 <0.5 <1 <0.5 <0.5	ND <10 <0.5 <1 <0.5 <0.5	— 10 (UJ) — — — —
MW-12	07/10/02 04/14/03 04/25/06 04/24/07	3.5-13.5'	<0.100 <1 <0.5 <0.5	<0.100 <1 <0.5 32	<10 <1 <0.5 <0.5	<0.100 <1 <0.5 <0.5	<2 <1 <0.5 7	<0.100 <1 <0.5 <0.5	<0.100 <1 <0.5 <0.5	<10 — — — —	<10 — — — —
MW-214S	04/14/05 04/25/06 04/25/07	10-13'	<1 <0.5 <0.5	3 1 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<2 <0.5 <0.5	<1 <0.5 <0.5	— — — —	— — — —
MW-214M	04/14/05 04/25/06 04/25/07	20-23'	<1 <0.5 <0.5	3 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<2 <0.5 <0.5	<1 <0.5 <0.5	— — —	— — —
MW-214D	04/14/05 04/25/06 04/25/07	30-33'	<1 <0.5 <0.5	<1 <0.5 1	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<2 <0.5 <0.5	<1 <0.5 <0.5	— — —	— — —
SIDE GRADIENT EAST (Vicinity of Aberjona River)											
MW-010S	04/22/02 04/14/05 04/25/06	4-14'	<0.100 <1 <0.5	<0.100 <1 <0.5	<10 <1 <0.5	<0.100 <1 <0.5	<2 <1 1	<0.100 <1 <0.5	<0.100 <1 <0.5	10 (UJ) — —	<10 — —
MW-010M	04/25/02 04/14/05 04/25/06	40-50'	<0.100 2 <0.5	0.0779(J) 1 <0.5	<10 <1 <0.5	<0.100 <1 <0.5	<2 <1 <0.5	<0.100 <1 <0.5	<0.100 <1 <0.5	10 (UJ) — —	<10 — —
MW-010D	04/25/02 04/25/06	88.5-98.5'	0.174 <0.5	1.4 <0.5	<10 <0.5	<0.100 <0.5	<2 <0.5	<0.100 <0.5	<0.100 <0.5	10 (UJ) <0.5	<10 —
MW-215S	04/13/05 04/24/06	10-13'	2,300 2,400	6,200 5,400	<100 <100	<100 <100	430 250	<200 <100	<100 <100	— 430	— 13,000
MW-215S (DUP-1)	04/24/06 09/28/06 04/25/07		2,400 2,900 1,900	5,200 5,400 3,500	<100 <50 <250	<100 <50 <250	260 290 <250	<100 <50 <250	<100 <50 <250	440 671 <250	15,000 21,000 14,000
MW-215M	04/13/05 04/13/05 04/26/06 10/30/06 04/24/07	20-23'	<1 <1 <0.5 <0.5 <0.5	<1 <1 <0.5 2 <0.5	<1 <1 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	<2 <2 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	— — — — —	— — — — —
MW-215M (DUP-2)	04/13/05 04/13/05 04/26/06 10/30/06 04/24/07		<0.5 <0.5 <0.5 2 <0.5	<0.5 <0.5 <0.5 2 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5	— — — — —	— — — — —
MW-215D	04/13/05 09/13/05 01/11/06 04/26/06 07/19/06 03/28/07	30-33'	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<2 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	— — — — — —	— — — — — —

TABLE I
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis-1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro-trifluoroethane
			5	5	200	7	70	2	5	10,000	NA
OUTSIDE CONTAINMENT CELL, (continued)											
SIDE GRADIENT EAST (Vicinity of Aberjona River)											
MW-216S	04/13/05 09/13/05 04/26/06 09/28/06 04/24/07	10-13'	<500 740 <1000 <1000 <1000	20,000 31,000 35,000 48,000 48,000	<500 <500 <1,000 <1,000 <1,000	<500 <500 <1,000 <1,000 <1,000	<500 <500 <1,000 <1,000 <1,000	<1,000 <1,000 <1,000 <1,000 <1,000	<500 <500 <1,000 <1,000 <1,000	-- <500 <1,000 <1,000 <1,000	5,500 <10,000 <10,000 <10,000 <10,000
MW-216M	04/13/05 04/26/06 04/24/07	20-23'	<1 <0.5 <0.5	<1 4 10	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<2 <0.5 <0.5	<1 <0.5 <0.5	-- <0.5 <0.5	-- <5 <5
MW-216D	04/13/05 09/13/05 01/11/06 04/26/06 07/19/06 12/14/06 04/24/07	30-33'	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<2 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	-- <0.5 <0.5 <0.5 <0.5 0.6 <5	-- <5 <5 <5 <5 <5
SIDE GRADIENT WEST (Adjacent to Sewer Line Easement)											
GEO-5	06/24/03	2-12'	280	3,300	<50	<50	<50	<50	<50	<50	--
GEO-6	06/24/03 04/13/05 04/24/06 10/30/06 04/24/07 06/18/07	11-16'	<0.5 <1 <0.5 <0.5 <0.5 <0.5	<0.5 <1 <0.5 2 <0.5 <0.5	<0.5 <1 <0.5 <0.5 <0.5 <0.5	<0.5 <1 <0.5 <0.5 <0.5 <0.5	<0.5 <1 <0.5 <0.5 <0.5 <0.5	<0.5 <2 <0.5 <0.5 <0.5 <0.5	<0.5 <1 <0.5 <0.5 <0.5 <0.5	<0.5 -- <0.5 <0.5 <0.5 <0.5	-- -- <5 <5 <5
GEO-7	06/24/03 04/13/05 04/24/06 09/28/06 04/26/07 06/18/07	6-16'	2 4 <0.5 <0.5 <0.5 <0.5	8 4 1 <0.5 <0.5 <0.5	<0.5 <1 <0.5 <0.5 <0.5 <0.5	<0.5 <1 <0.5 <0.5 <0.5 <0.5	<0.5 <1 <0.5 <0.5 <0.5 <0.5	<0.5 <2 <0.5 <0.5 <0.5 <0.5	<0.5 -- <0.5 <0.5 <0.5 <0.5	<0.5 -- <0.5 <0.5 <0.5 <0.5	-- -- <5 <5 <5
MW-13	07/09/02 04/22/03 06/02/03 04/14/05 04/26/06 09/28/06 04/26/07 06/18/07	7-17'	410 650 430 470 1,500 1,100 1,400 1,100	780 280 250 <10 160 1,400 <25 2,200	<10 <10 <25 <10 <10 <50 <25 <50	<2 <10 <25 <10 <10 <50 <25 <50	1,500 780 1,300 340 350 480 <50 380	<2 <10 <25 <10 <10 <50 <25 <50	<2 <10 <25 <10 <10 <50 <25 <50	6 (J) <10 <25 -- -- -- -- --	150 -- -- -- -- 3,800 1,700 2,100 2,700
SIDE GRADIENT WEST (Adjacent to Sewer Line Easement)											
MW-212M	04/14/05 04/36/06 04/25/07	20-23'	<1 <0.5 <0.5	<1 3 7	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 2	<2 <0.5 <0.5	<1 <0.5 <0.5	-- 0.6 <0.5	-- <5
MW-212D MW-212D (DUP-6)	04/14/05 04/14/05 04/26/06 04/26/07	30-33'	<1 <1 <0.5 <0.5	<1 <1 <0.5 <0.5	<1 <1 <0.5 <0.5	<1 <1 <0.5 <0.5	<1 <2 <0.5 <0.5	<2 <1 <0.5 <0.5	<1 <1 <0.5 <0.5	-- -- <0.5 <0.5	-- -- <5 <5
MW-213S MW-213S (DUP-1)	04/13/05 04/13/05 04/24/06 03/28/07 06/18/07	10-13'	240 230 120 330 400	70 70 120 900 2,000 D	<5 <5 <25 <10 <10	<5 <5 <25 <10 <10	140 140 47 150 200	<10 <10 <25 <10 <10	<5 <5 <25 <10 <10	-- -- -- 1,300 550 760	-- -- -- -- --
MW-213M	04/13/05 04/24/06 04/24/07 06/18/07	20-23'	<1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	<2 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	-- <0.5 <0.5 <0.5	-- <5 <5 <5
MW-213D	04/13/05 04/24/06 03/28/07	30-33'	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<2 <0.5 <0.5	<1 <0.5 <0.5	-- <0.5 <0.5	-- <5 <5

TABLE I
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis-1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro-trifluoroethane
			5	5	200	7	70	2	5	10,000	NA
GROUND WATER STANDARDS											
OUTSIDE CONTAINMENT CELL (continued)											
SIDE GRADIENT WEST (Adjacent to Sewer Line Easement)											
MW-220N	04/14/05 04/26/06 04/27/07	20-23'	<1 <1 <0.5	<1 <1 <0.5	<1 <1 <0.5	<1 <1 <0.5	<1 <1 <0.5	<2 <1 <0.5	<1 <1 <0.5	— <1 <0.5	<10 <5
MW-220D	04/13/05 04/26/06 09/28/06 04/26/07	30-33'	<1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5	<2 <0.5 <0.5 <0.5	<1 <0.5 <0.5	— <0.5 <0.5	<5 <5
GEO-8 (MW-301)	06/18/07	15-20'	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
GEO-9 (MW-302)	06/18/07	15-20'	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
DOWNGRADIENT											
MW-011S	04/26/02 04/14/05 04/25/06	4-14'	<0.100 2 3	0.13 5 8	<10 <1 <0.5	<0.100 <1 <0.5	<2 13 26	0.264 <2 2	<0.100 <1 <0.5	10 (UJ) — 43	<10 — 43
MW-011M	04/26/02 04/14/05 04/25/06	40-50'	7 <1 <0.5	120 19 4	<10 <1 <0.5	<2 <1 <0.5	17 2 0.8	<2 <1 <0.5	<2 <1 <0.5	10 (UJ) — <5	250 — <5
MW-011D	04/26/02 04/25/06	81-91'	<0.100 <0.5	<0.100 <0.5	<10 <0.5	<0.100 <0.5	<2 <0.5	<0.100 <0.5	<0.100 <0.5	10 (UJ) <0.5	<10 <5
MW-014S	07/10/02 04/22/03 06/02/03 04/13/05 09/28/06 04/24/07 06/18/07	5-15'	25 1 2 3 120 39 51	180 6 15 6 810 25 29	<10 <1 <1 <1 <10 <0.5 <2.5	<2 <1 <1 <1 <10 <0.5 <2.5	670 61 62 98 110 29 33	190 19 16 16 <10 6 7	<2 <1 <1 <1 <10 <0.5 <2.5	<10 — — — — — 370	31 — — — 110 0.7 370
MW-014M	07/10/02 04/13/05 04/24/06 10/30/06 04/24/07	20-30'	<0.100 <1 <0.5 <0.5 <0.5	<0.100 <1 <0.5 <0.5 <0.5	<10 <1 <0.5 <0.5 <0.5	<0.100 <1 <0.5 <0.5 <0.5	<2 <1 <0.5 <0.5 <0.5	<0.100 <1 <0.5 <0.5 <0.5	<0.100 <1 <0.5 <0.5 <0.5	<10 — — — —	<10 — <5
MW-014D	04/13/05 MW-014D (DUP4)	37-40'	<1 <1 <0.5 <0.5 <0.5	<1 <1 0.6 0.5 2	<1 <1 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	<2 <1 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	— — — — —	<1 — — — —
DOWNGRADIENT											
MW-217S	04/13/05 04/24/06 04/24/07	10-13'	<5 7 <0.5	190 69 3	<5 <5 <0.5	<5 <5 <0.5	400 80 2	<10 <5 <0.5	<5 <5 <0.5	— — <0.5	— — 26
MW-217M	04/13/05 04/24/06 04/24/07	25-28'	<1 <0.5 <0.5	<1 <1 <0.5	<1 <1 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<2 <0.5 <0.5	<1 <0.5 <0.5	— — <5	— — <5
MW-217D	04/13/05 09/13/05 01/11/06 04/24/06 07/19/06 03/28/07	37-40'	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	<2 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5	— — — — — <5	— — — — — <5

TABLE 1
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis-1,2-DCE	Vinyl Chloride	Chloroform	Xylene	1,1,2-Trichloro-trifluoroethane
GROUND WATER STANDARDS			5	5	200	7	70	2	5	10,000	NA
OUTSIDE CONTAINMENT CELL (continued)											
DOWNGRADIENT											
MW-218S	04/13/05 04/25/06 04/25/06 04/25/07	10-13'	<1 <1 <1 <0.5	27 1 1 3	<1 <1 <1 <0.5	<1 <1 <1 <0.5	93 44 45 10	5 6 6 3	<1 <1 <1 <0.5	— <1 <1 <0.5	— <10 <10 <5
MW-218M	04/13/05 04/26/06 04/25/07	25-28'	<1 <0.5 <0.5	<1 4 1	<1 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	<2 <0.5 <0.5	<1 <0.5 <0.5	— <0.5 <0.5	— <5 <5
MW-218D	04/13/05 MW-218D (DUP-3) 04/26/06 12/14/06 04/26/07	37-40'	<1 <1 <0.5 <0.5 <0.5	<1 <1 1 <1 <0.5	<1 <1 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	<2 <2 <0.5 <0.5 <0.5	<1 <1 <0.5 <0.5 <0.5	— — <0.5 <5 <5	— — — — —
MW-219S	04/13/05 04/25/06 04/25/07	10-13'	<1 <0.5 <0.5	2 <0.5 <0.5	<1 <0.5 <0.5	<1 <0.5 <0.5	33 <0.5 <0.5	5 <0.5 <0.5	<1 <0.5 <0.5	— <0.5 <0.5	— <5 <5
MW-219M	04/13/05 04/25/06 04/24/07	25-28'	<1 <5 <1	6 11 6	<1 <5 <1	<1 <5 <1	63 210 56	12 12 6	<1 <5 <1	— <5 <10	— <50 <10
MW-219D	04/13/05 09/13/05 01/11/06 04/25/06 07/19/06 03/28/07 04/24/07	37-40'	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<2 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	— <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	— — — — — — —

NOTES:

1. Values in micrograms per liter (ug/l).
2. Bold exceeds laboratory detection limits.
3. Shaded concentrations exceed applicable Ground Water Standard.
4. Ground Water Standards are ROD ICLs or MCP Method 1/GW-1 Risk Standards.
5. (J) = estimated concentration.
6. (UJ) = estimated non-detect.
7. DCE = Dichloroethene
8. TCE = Trichloroethene
9. TCA = Trichloroethane
10. PCE = Tetrachloroethene
11. ND = Not Detected: detection limit unknown.
12. — = Not analyzed
13. + = Sodium permanganate was present in monitoring well at time of sampling.
14. Sodium permanganate injected between September 1, 2005 and December 20, 2005.
15. D = listed value obtained from second (diluted) analytical run.
16. e = Concentration exceeded calibration range for the analyte.
17. On March 28, 2007 OL-2M was mislabeled as MW-OL-2M on the chain of custody submitted to the lab.

GROUNDWATER ANALYTICAL

Groundwater Analytical, Inc.
P.O. Box 1200
228 Main Street
Buzzards Bay MA 02532

Telephone (508) 759-4441
FAX (508) 759-4475
www.groundwateranalytical.com

July 11, 2007

Ms. Christene Binger
GeoInsight, Inc.
5 Lan Drive
Second Floor
Westford, MA 01886

LABORATORY REPORT

Project: **60 Olympia/2491-005**
Lab ID: **108194**
Received: **06-19-07**

Dear Christene:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,



Jonathan R. Sanford
President

JRS/jad
Enclosures

GROUNDWATER ANALYTICAL

Sample Receipt Report

Project: **60 Olympia/2491-005**
 Client: **GeoInsight, Inc.**
 Lab ID: **108194**

Delivery: **GWA Courier**
 Airbill: **n/a**
 Lab Receipt: **06-19-07**

Temperature: **2.0°C**
 Chain of Custody: **Present**
 Custody Seal(s): **n/a**

Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-1	GEO-7	Aqueous	6/18/07 11:20	EPA 8260B Volatile Organics with Oxygenates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C978950	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978949	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978948	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-2	GEO-6	Aqueous	6/18/07 11:25	EPA 8260B Volatile Organics with Oxygenates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C978951	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978939	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978938	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-3	MW-301	Aqueous	6/18/07 12:45	EPA 8260B Volatile Organics with Oxygenates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C978981	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978971	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978961	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-4	MW-302	Aqueous	6/18/07 12:55	EPA 8260B Volatile Organics with Oxygenates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C978960	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978959	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978958	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-5	MW-213M	Aqueous	6/18/07 14:10	EPA 8260B Volatile Organics with Oxygenates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C978980	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978979	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978978	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-6	MW-014S	Aqueous	6/18/07 14:25	EPA 8260B Volatile Organics with Oxygenates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C978942	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978941	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978940	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-7	MW-013	Aqueous	6/18/07 15:20	EPA 8260B Volatile Organics with Oxygenates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C978996	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978995	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a
C978994	40 mL VOA Vial	Proline	BX25780	HCL	R-5142D	03-22-07	n/a

GROUNDWATER ANALYTICAL

Sample Receipt Report (Continued)

Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Lab ID: 108194

Delivery: GWA Courier
 Airbill: n/a
 Lab Receipt: 06-19-07

Temperature: 2.0°C
 Chain of Custody: Present
 Custody Seal(s): n/a

Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-8	MW-213S	Aqueous	6/18/07 15:20	EPA 8260B Volatile Organics with Oxygenates			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C962307	40 mL VOA Vial	Proline	BX25780	HCl	R-5142D	03-22-07	n/a
C962306	40 mL VOA Vial	Proline	BX25780	HCl	R-5142D	03-22-07	n/a
C962305	40 mL VOA Vial	Proline	BX25780	HCl	R-5142D	03-22-07	n/a
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-9	GEO-7	Aqueous	6/18/07 11:20	EPA 6010B Fe Total			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C930365	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-10	GEO-6	Aqueous	6/18/07 11:25	EPA 6010B Fe Total			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C954307	250 mL Plastic	Proline	BX26728	HNO3	R-5221E	05-25-07	06-13-07
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-11	MW-301	Aqueous	6/18/07 12:45	EPA 6010B Fe Total			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C930387	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-12	MW-302	Aqueous	6/18/07 12:55	EPA 6010B Fe Total			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C954375	250 mL Plastic	Proline	BX26728	HNO3	R-5221E	05-25-07	06-13-07
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-13	MW-213M	Aqueous	6/18/07 14:10	EPA 6010B Fe Total			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C930203	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-14	MW-014S	Aqueous	6/18/07 14:25	EPA 6010B Fe Total			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C930249	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-15	MW-013	Aqueous	6/18/07 15:20	EPA 6010B Fe Total			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C930253	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-16	MW-213S	Aqueous	6/18/07 15:20	EPA 6010B Fe Total			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C930293	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07
Lab ID	Field ID	Matrix	Sampled	Method			Notes
108194-17	GEO-7	Aqueous	6/18/07 11:20	EPA 6010B Fe Dissolved			
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship
C954318	250 mL Plastic	Proline	BX26728	HNO3	R-5221E	05-25-07	06-13-07

GROUNDWATER ANALYTICAL

Sample Receipt Report (Continued)

Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Lab ID: 108194

Delivery: GWA Courier
 Airbill: n/a
 Lab Receipt: 06-19-07

Temperature: 2.0°C
 Chain of Custody: Present
 Custody Seal(s): n/a

Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-18	GEO-6	Aqueous	6/18/07 11:25	EPA 6010B Fe Dissolved				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930265	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-19	MW-301	Aqueous	6/18/07 12:45	EPA 6010B Fe Dissolved				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930362	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-20	MW-302	Aqueous	6/18/07 12:55	EPA 6010B Fe Dissolved				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930275	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-21	MW-213M	Aqueous	6/18/07 14:10	EPA 6010B Fe Dissolved				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930284	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-22	MW-014S	Aqueous	6/18/07 14:25	EPA 6010B Fe Dissolved				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930314	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-23	MW-013	Aqueous	6/18/07 15:20	EPA 6010B Fe Dissolved				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930360	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-24	MW-213S	Aqueous	6/18/07 15:20	EPA 6010B Fe Dissolved				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930389	250 mL Plastic	Proline	BX27077	HNO3	R-5221E	06-06-07	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-25	GEO-7	Aqueous	6/18/07 11:20	Lachat 10-107-04-1-C (SM 4500-NO3 F) Nitrate EPA 9056 Sulfate				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930091	250 mL Plastic	Proline	BX27076	None	n/a	n/a	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-26	GEO-6	Aqueous	6/18/07 11:25	Lachat 10-107-04-1-C (SM 4500-NO3 F) Nitrate EPA 9056 Sulfate				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930101	250 mL Plastic	Proline	BX27076	None	n/a	n/a	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-27	MW-301	Aqueous	6/18/07 12:45	Lachat 10-107-04-1-C (SM 4500-NO3 F) Nitrate EPA 9056 Sulfate				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930089	250 mL Plastic	Proline	BX27076	None	n/a	n/a	06-13-07	

GROUNDWATER ANALYTICAL

Sample Receipt Report (Continued)

Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Lab ID: 108194

Delivery: GWA Courier
 Airbill: n/a
 Lab Receipt: 06-19-07

Temperature: 2.0°C
 Chain of Custody: Present
 Custody Seal(s): n/a

Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-28	MW-302	Aqueous	6/18/07 12:55	Lachat 10-107-04-1-C (SM 4500-NO3 F) Nitrate EPA 9056 Sulfate				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930137	250 mL Plastic	Proline	BX27076	None	n/a	n/a	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-29	MW-213M	Aqueous	6/18/07 14:10	Lachat 10-1C7-04-1-C (SM 4500-NO3 F) Nitrate EPA 9056 Sulfate				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930100	250 mL Plastic	Proline	BX27076	None	n/a	n/a	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-30	MW-014S	Aqueous	6/18/07 14:25	Lachat 10-107-04-1-C (SM 4500-NO3 F) Nitrate EPA 9056 Sulfate				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930146	250 mL Plastic	Proline	BX27076	None	n/a	n/a	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-31	MW-013	Aqueous	6/18/07 15:20	Lachat 10-107-04-1-C (SM 4500-NO3 F) Nitrate EPA 9056 Sulfate				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930124	250 mL Plastic	Proline	BX27076	None	n/a	n/a	06-13-07	
Lab ID	Field ID	Matrix	Sampled	Method				Notes
108194-32	MW-213S	Aqueous	6/18/07 15:20	Lachat 10-107-04-1-C (SM 4500-NO3 F) Nitrate EPA 9056 Sulfate				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship	
C930191	250 mL Plastic	Proline	BX27076	None	n/a	n/a	06-13-07	

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: GEO-7
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-01
 Sampled: 06-18-07 11:20
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 11:47
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 1

Page 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorodifluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl (crt-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	cis-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	0.5
95-47-6	ortho-Xylene	BRL		ug/L	0.5

Page 6 of 67

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: GEO-7
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-01
 Sampled: 06-18-07 11:20
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 11:47
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 1

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	n-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	tert-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	sec-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	n-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl tert- butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	118 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	12	116 %	70 - 130 %
Toluene-d ₈	10	9.9	99 %	70 - 130 %
4-Bromofluorobenzene	10	8.6	86 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: GEO-6
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-02
 Sampled: 06-18-07 11:25
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 12:15
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 1

Page 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorodifluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	trans- 1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl tert- butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	cis- 1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	cis- 1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	trans- 1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	0.5
95-47-6	ortho-Xylene	BRL		ug/L	0.5

Page 8 of 67

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: GEO-6
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-02
 Sampled: 06-18-07 11:25
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 12:15
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 1

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	n-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	tert-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	sec-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	n-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	118 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	11	114 %	70 - 130 %
Toluene-d ₈	10	9.6	96 %	70 - 130 %
4-Bromofluorobenzene	10	8.7	87 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, USEPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

EPA Method 8260B G-E-O-8 Volatile Organics by GC/MS

Field ID: MW904 CNB 7/24/2007 Matrix: Aqueous
 Project: 60 Olympia/2491-005 Container: 40 mL VOA Vial
 Client: GeoInsight, Inc. Preservation: HCl/Cool
 Laboratory ID: 108194-03 QC Batch ID: VM7-2542-W
 Sampled: 06-18-07 12:45 Instrument ID: MS-7 Agilent 6890
 Received: 06-19-07 18:15 Sample Volume: 25 mL
 Analyzed: 07-02-07 12:43 Dilution Factor: 1
 Analyst: KMC

Page 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	0.6		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl tert- butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	cis-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	0.5
95-47-6	ortho-Xylene	BRL		ug/L	0.5

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: MW-901 G EO-8 Date: 9/21/2007 Matrix: Aqueous
 Project: 60 Olympia/2491-005 Container: 40 mL VOA Vial
 Client: GeolnSight, Inc. Preservation: HCl/Cool

 Laboratory ID: 108194-03 QC Batch ID: VM7-2542-W
 Sampled: 06-18-07 12:45 Instrument ID: MS-7 Agilent 6890
 Received: 06-19-07 18:15 Sample Volume: 25 mL
 Analyzed: 07-02-07 12:43 Dilution Factor: 1
 Analyst: KMC

Page. 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	n-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	tert-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	sec-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	n-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	122 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	11	108 %	70 - 130 %
Toluene-d ₈	10	10	100 %	70 - 130 %
4-Bromofluorobenzene	10	8.8	88 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: MW-302 GEO-9
 Project: 60 Olympia/2491-005
 Client: Geolnsight, Inc.
 Laboratory ID: 108194-04
 Sampled: 06-18-07 12:55
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 13:12
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 1

Page. 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	cis-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	0.5
95-47-6	ortho-Xylene	BRL		ug/L	0.5

Page 12 of 67

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: MW-302 G EO-9 Date: 9/21/2007 Matrix: Aqueous
 Project: 60 Olympia/2491-005 Container: 40 mL VOA Vial
 Client: GeoInsight, Inc. Preservation: HCl/Cool

 Laboratory ID: 108194-04 QC Batch ID: VM7-2542-W
 Sampled: 06-18-07 12:55 Instrument ID: MS-7 Agilent 6890
 Received: 06-19-07 18:15 Sample Volume: 25 mL
 Analyzed: 07-02-07 13:12 Dilution Factor: 1
 Analyst: KMC

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	n-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	tert-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	sec-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	n-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	13	126 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	11	107 %	70 - 130 %
Toluene-d ₈	10	10	100 %	70 - 130 %
4-Bromofluorobenzene	10	8.8	88 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)
 Sample preparation performed by EPA Method 5030B

Report Notations: BRL indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: MW-213M
 Project: 60 Olympia/2491-005
 Client: Geolnspire, Inc.
 Laboratory ID: 108194-05
 Sampled: 06-18-07 14:10
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 13:40
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 1

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	0.6		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	cis-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	0.5
95-47-6	ortho-Xylene	BRL		ug/L	0.5

Page 14 of 67

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: MW-213M Matrix: Aqueous
 Project: 60 Olympia/2491-005 Container: 40 mL VOA Vial
 Client: GeoInsight, Inc. Preservation: HCl/Cool
 Laboratory ID: 108194-05 QC Batch ID: VM7-2542-W
 Sampled: 06-18-07 14:10 Instrument ID: MS-7 Agilent 6890
 Received: 06-19-07 18:15 Sample Volume: 25 mL
 Analyzed: 07-02-07 13:40 Dilution Factor: 1
 Analyst: KMC

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	n-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	tert-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	sec-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	n-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	124 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	11	107 %	70 - 130 %
Toluene-d ₈	10	9.1	91 %	70 - 130 %
4-Bromofluorobenzene	10	8.8	88 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)
 Sample preparation performed by EPA Method 5030B

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: MW-014S
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-06
 Sampled: 06-18-07 14:25
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 14:08
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 5

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	2.5
74-87-3	Chloromethane	BRL		ug/L	2.5
75-01-4	Vinyl Chloride	7		ug/L	2.5
74-83-9	Bromomethane	BRL		ug/L	2.5
75-00-3	Chloroethane	BRL		ug/L	2.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	2.5
60-29-7	Diethyl Ether	BRL		ug/L	10
75-35-4	1,1-Dichloroethene	BRL		ug/L	2.5
76-13-1	1,1,2-Trichlorotrifluoroethane	370		ug/L	25
67-64-1	Acetone	BRL		ug/L	50
75-15-0	Carbon Disulfide	BRL		ug/L	25
75-09-2	Methylene Chloride	BRL		ug/L	13
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	2.5
1634-04-4	Methyl tert- butyl Ether (MTBE)	BRL		ug/L	2.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	2.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	2.5
156-59-2	cis-1,2-Dichloroethene	33		ug/L	2.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	25
74-97-5	Bromochloromethane	BRL		ug/L	2.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	25
67-66-3	Chloroform	BRL		ug/L	2.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	2.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	2.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	2.5
71-43-2	Benzene	BRL		ug/L	2.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	2.5
79-01-6	Trichloroethene	29		ug/L	2.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	2.5
74-95-3	Dibromomethane	BRL		ug/L	2.5
75-27-4	Bromodichloromethane	BRL		ug/L	2.5
123-91-1	1,4-Dioxane	BRL		ug/L	2,500
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	2.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	25
108-88-3	Toluene	BRL		ug/L	2.5
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	2.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	2.5
127-18-4	Tetrachloroethene	51		ug/L	2.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	2.5
591-78-6	2-Hexanone	BRL		ug/L	25
124-48-1	Dibromochloromethane	BRL		ug/L	2.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	2.5
108-90-7	Chlorobenzene	BRL		ug/L	2.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	2.5
100-41-4	Ethylbenzene	BRL		ug/L	2.5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	2.5
95-47-6	ortho-Xylene	BRL		ug/L	2.5

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: MW-014S Matrix: Aqueous
 Project: 60 Olympia/2491-005 Container: 40 mL VOA Vial
 Client: GeoInsight, Inc. Preservation: HCl/Cool
 Laboratory ID: 108194-06 QC Batch ID: VM7-2542-W
 Sampled: 06-18-07 14:25 Instrument ID: MS-7 Agilent 6890
 Received: 06-19-07 18:15 Sample Volume: 25 mL
 Analyzed: 07-02-07 14:08 Dilution Factor: 5
 Analyst: KMC

Page. 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	2.5
75-25-2	Bromoform	BRL		ug/L	2.5
98-82-8	Isopropylbenzene	BRL		ug/L	2.5
108-86-1	Bromobenzene	BRL		ug/L	2.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	2.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	2.5
103-65-1	n-Propylbenzene	BRL		ug/L	2.5
95-49-8	2-Chlorotoluene	BRL		ug/L	2.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	2.5
106-43-4	4-Chlorotoluene	BRL		ug/L	2.5
98-06-6	tert-Butylbenzene	BRL		ug/L	2.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	2.5
135-98-8	sec-Butylbenzene	BRL		ug/L	2.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	2.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	2.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	2.5
95-50-1	1,2-Dichlorobenzene	4		ug/L	2.5
104-51-8	n-Butylbenzene	BRL		ug/L	2.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	2.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	2.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	2.5
91-20-3	Naphthalene	BRL		ug/L	2.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	2.5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	100
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	2.5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	2.5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	2.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	119 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	10	103 %	70 - 130 %
Toluene-d ₈	10	10	102 %	70 - 130 %
4-Bromofluorobenzene	10	9	90 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: MW-013
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-07
 Sampled: 06-18-07 15:20
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 14:37
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 50

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	25
74-87-3	Chloromethane	BRL		ug/L	25
75-01-4	Vinyl Chloride	34		ug/L	25
74-83-9	Bromomethane	BRL		ug/L	25
75-00-3	Chloroethane	BRL		ug/L	25
75-69-4	Trichlorofluoromethane	BRL		ug/L	25
60-29-7	Diethyl Ether	BRL		ug/L	100
75-35-4	1,1-Dichloroethene	BRL		ug/L	25
76-13-1	1,1,2-Trichlorotrifluoroethane	2,700		ug/L	250
67-64-1	Acetone	BRL		ug/L	750
75-15-0	Carbon Disulfide	BRL		ug/L	250
75-09-2	Methylene Chloride	BRL		ug/L	150
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	25
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/L	25
75-34-3	1,1-Dichloroethane	BRL		ug/L	25
594-20-7	2,2-Dichloropropane	BRL		ug/L	25
156-59-2	cis-1,2-Dichloroethene	710		ug/L	25
78-93-3	2-Butanone (MEK)	1,900		ug/L	250
74-97-5	Bromochloromethane	BRL		ug/L	25
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	250
67-66-3	Chloroform	BRL		ug/L	25
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	25
56-23-5	Carbon Tetrachloride	BRL		ug/L	25
563-58-6	1,1-Dichloropropene	BRL		ug/L	25
71-43-2	Benzene	BRL		ug/L	25
107-06-2	1,2-Dichloroethane	BRL		ug/L	25
79-01-6	Trichloroethene	8,300	e	ug/L	25
78-87-5	1,2-Dichloropropane	BRL	-	ug/L	25
74-95-3	Dibromomethane	BRL		ug/L	25
75-27-4	Bromodichloromethane	BRL		ug/L	25
123-91-1	1,4-Dioxane	BRL		ug/L	25000
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	25
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	250
108-88-3	Toluene	BRL		ug/L	25
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	25
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	25
127-18-4	Tetrachloroethene	1,100		ug/L	25
142-28-9	1,3-Dichloropropane	BRL		ug/L	25
591-78-6	2-Hexanone	BRL		ug/L	250
124-48-1	Dibromochloromethane	BRL		ug/L	25
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	25
108-90-7	Chlorobenzene	BRL		ug/L	25
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	25
100-41-4	Ethylbenzene	BRL		ug/L	25
106-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	25
95-47-6	ortho-Xylene	BRL		ug/L	25

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: **MW-013**
 Project: **60 Olympia/2491-005**
 Client: **GeoInsight, Inc.**
 Laboratory ID: **108194-07**
 Sampled: **06-18-07 15:20**
 Received: **06-19-07 18:15**
 Analyzed: **07-02-07 14:37**
 Analyst: **KMC**
 Matrix: **Aqueous**
 Container: **40 mL VOA Vial**
 Preservation: **HCl/Cool**
 QC Batch ID: **VM7-2542-W**
 Instrument ID: **MS-7 Agilent 6890**
 Sample Volume: **25 mL**
 Dilution Factor: **50**

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	25
75-25-2	Bromoform	BRL		ug/L	25
98-82-8	Isopropylbenzene	BRL		ug/L	25
108-86-1	Bromobenzene	BRL		ug/L	25
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	25
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	25
103-65-1	n-Propylbenzene	BRL		ug/L	25
95-49-8	2-Chlorotoluene	BRL		ug/L	25
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	25
106-43-4	4-Chlorotoluene	BRL		ug/L	25
98-06-6	tert-Butylbenzene	BRL		ug/L	25
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	25
135-98-8	sec-Butylbenzene	BRL		ug/L	25
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	25
99-87-6	4-Isopropyltoluene	BRL		ug/L	25
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	25
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	25
104-51-8	n-Butylbenzene	BRL		ug/L	25
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	25
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	25
87-68-3	Hexachlorobutadiene	BRL		ug/L	25
91-20-3	Naphthalene	BRL		ug/L	25
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	25
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	1000
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	25
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	25
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	25

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	118 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	10	104 %	70 - 130 %
Toluene-d ₈	10	10	103 %	70 - 130 %
4-Bromofluorobenzene	10	8.9	89 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B

Report Notations: BRI: Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 e: Indicates concentration exceeded calibration range for the analyte

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: MW-013
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-07RA1
 Sampled: 06-18-07 15:20
 Received: 06-19-07 18:15
 Analyzed: 07-08-07 05:47
 Analyst: LMG

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2549-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 200

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	100
74-87-3	Chloromethane	BRL		ug/L	100
75-01-4	Vinyl Chloride	BRL		ug/L	100
74-83-9	Bromomethane	BRL		ug/L	100
75-00-3	Chloroethane	BRL		ug/L	100
75-69-4	Trichlorodifluoromethane	BRL		ug/L	100
60-29-7	Diethyl Ether	BRL		ug/L	400
75-35-4	1,1-Dichloroethene	BRL		ug/L	100
76-13-1	1,1,2-Trichlorotrifluoroethane	2,100		ug/L	1000
67-64-1	Acetone	BRL		ug/L	2000
75-15-0	Carbon Disulfide	BRL		ug/L	1000
75-09-2	Methylene Chloride	BRL		ug/L	500
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	100
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/L	100
75-34-3	1,1-Dichloroethane	BRL		ug/L	100
594-20-7	2,2-Dichloropropane	BRL		ug/L	100
156-59-2	cis-1,2-Dichloroethene	660		ug/L	100
78-93-3	2-Butanone (MEK)	BRL		ug/L	1000
74-97-5	Bromochloromethane	BRL		ug/L	100
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	1000
67-66-3	Chloroform	BRL		ug/L	100
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	100
56-23-5	Carbon Tetrachloride	BRL		ug/L	100
563-58-6	1,1-Dichloropropene	BRL		ug/L	100
71-43-2	Benzene	BRL		ug/L	100
107-06-2	1,2-Dichloroethane	BRL		ug/L	100
79-01-6	Trichloroethene	7,100		ug/L	100
78-87-5	1,2-Dichloropropane	BRL		ug/L	100
74-95-3	Dibromomethane	BRL		ug/L	100
75-27-4	Bromodichloromethane	BRL		ug/L	100
123-91-1	1,4-Dioxane	BRL		ug/L	100000
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	100
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	1000
108-88-3	Toluene	BRL		ug/L	100
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	100
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	100
127-18-4	Tetrachloroethene	830		ug/L	100
142-28-9	1,3-Dichloropropane	BRL		ug/L	100
591-78-6	2-Hexanone	BRL		ug/L	1000
124-48-1	Dibromochloromethane	BRL		ug/L	100
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	100
108-90-7	Chlorobenzene	BRL		ug/L	100
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	100
100-41-4	Ethylbenzene	BRL		ug/L	100
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	100
95-47-6	ortho-Xylene	BRL		ug/L	100

Page 20 of 67

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: MW-013
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-07RA1
 Sampled: 06-18-07 15:20
 Received: 06-19-07 18:15
 Analyzed: 07-08-07 05:47
 Analyst: LMG

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2549-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 200

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	100
75-25-2	Bromoform	BRL		ug/L	100
98-82-8	Isopropylbenzene	BRL		ug/L	100
108-86-1	Bromobenzene	BRL		ug/L	100
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	100
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	100
103-65-1	n-Propylbenzene	BRL		ug/L	100
95-49-8	2-Chlorotoluene	BRL		ug/L	100
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	100
106-43-4	4-Chlorotoluene	BRL		ug/L	100
98-06-6	tert-Butylbenzene	BRL		ug/L	100
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	100
135-98-8	sec-Butylbenzene	BRL		ug/L	100
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	100
99-87-6	4-Isopropyltoluene	BRL		ug/L	100
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	100
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	100
104-51-8	n-Butylbenzene	BRL		ug/L	100
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	100
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	100
87-68-3	Hexachlorobutadiene	BRL		ug/L	100
91-20-3	Naphthalene	BRL		ug/L	100
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	100
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	4000
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	100
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	100
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	100

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	117 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	10	103 %	70 - 130 %
Toluene-d ₈	10	9.8	98 %	70 - 130 %
4-Bromofluorobenzene	10	9.3	93 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, USEPA, SW-846, Third Edition, Update III (1996).
Sample preparation performed by EPA Method 5030B

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: MW-2135
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-08
 Sampled: 06-18-07 15:20
 Received: 06-19-07 18:15
 Analyzed: 07-02-07 16:02
 Analyst: KMC

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2542-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 20

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	10
74-87-3	Chloromethane	BRL		ug/L	10
75-01-4	Vinyl Chloride	BRL		ug/L	10
74-83-9	Bromomethane	BRL		ug/L	10
75-00-3	Chloroethane	BRL		ug/L	10
75-69-4	Trichlorofluoromethane	BRL		ug/L	10
60-29-7	Diethyl Ether	BRL		ug/L	40
75-35-4	1,1-Dichloroethene	BRL		ug/L	10
76-13-1	1,1,2-Trichlorotrifluoroethane	760		ug/L	100
67-64-1	Acetone	BRL		ug/L	200
75-15-0	Carbon Disulfide	BRL		ug/L	100
75-09-2	Methylene Chloride	51		ug/L	50
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	10
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/L	10
75-34-3	1,1-Dichloroethane	BRL		ug/L	10
594-20-7	2,2-Dichloropropane	BRL		ug/L	10
156-59-2	cis-1,2-Dichloroethene	200		ug/L	10
78-93-3	2-Butanone (MEK)	BRL		ug/L	100
74-97-5	Bromochloromethane	BRL		ug/L	10
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	100
67-66-3	Chloroform	BRL		ug/L	10
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	10
56-23-5	Carbon Tetrachloride	BRL		ug/L	10
563-58-6	1,1-Dichloropropene	BRL		ug/L	10
71-43-2	Benzene	BRL		ug/L	10
107-06-2	1,2-Dichloroethane	BRL		ug/L	10
79-01-6	Trichloroethene	1,900	e	ug/L	10
78-87-5	1,2-Dichloropropane	BRL		ug/L	10
74-95-3	Dibromomethane	BRL		ug/L	10
75-27-4	Bromodichloromethane	BRL		ug/L	10
123-91-1	1,4-Dioxane	BRL		ug/L	10000
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	10
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	100
108-88-3	Toluene	BRL		ug/L	10
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	10
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	10
127-18-4	Tetrachloroethene	400		ug/L	10
142-28-9	1,3-Dichloropropane	BRL		ug/L	10
591-78-6	2-Hexanone	BRL		ug/L	100
124-48-1	Dibromochloromethane	BRL		ug/L	10
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	10
108-90-7	Chlorobenzene	BRL		ug/L	10
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	10
100-41-4	Ethylbenzene	BRL		ug/L	10
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	10
95-47-6	ortho-Xylene	BRL		ug/L	10

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: MW-213S Matrix: Aqueous
 Project: 60 Olympia/2491-005 Container: 40 mL VOA Vial
 Client: GeoInsight, Inc. Preservation: HCl/Cool

 Laboratory ID: 108194-08 QC Batch ID: VM7-2542-W
 Sampled: 06-18-07 15:20 Instrument ID: MS-7 Agilent 6890
 Received: 06-19-07 18:15 Sample Volume: 25 mL
 Analyzed: 07-02-07 16:02 Dilution Factor: 20
 Analyst: KMC

Page: 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	10
75-25-2	Bromoform	BRL		ug/L	10
98-82-8	Isopropylbenzene	BRL		ug/L	10
108-86-1	Bromobenzene	BRL		ug/L	10
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	10
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	10
103-65-1	n-Propylbenzene	BRL		ug/L	10
95-49-8	2-Chlorotoluene	BRL		ug/L	10
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	10
106-43-4	4-Chlorotoluene	BRL		ug/L	10
98-06-6	tert-Butylbenzene	BRL		ug/L	10
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	10
135-98-8	sec-Butylbenzene	BRL		ug/L	10
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	10
99-87-6	4-Isopropyltoluene	BRL		ug/L	10
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	10
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	10
104-51-8	n-Butylbenzene	BRL		ug/L	10
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	10
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	10
87-68-3	Hexachlorobutadiene	BRL		ug/L	10
91-20-3	Naphthalene	BRL		ug/L	10
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	10
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	400
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	10
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	10
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	10
QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Dibromofluoromethane	10	12	116 %	70 - 130 %	
1,2-Dichloroethane-d ₄	10	10	103 %	70 - 130 %	
Toluene-d ₈	10	10	102 %	70 - 130 %	
4-Bromofluorobenzene	10	9	90 %	70 - 130 %	

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 e indicates concentration exceeded calibration range for the analyte.

GROUNDWATER ANALYTICAL

EPA Method 8260B Volatile Organics by GC/MS

Field ID: MW-213S
 Project: 60 Olympia/2491-005
 Client: Geolnsight, Inc.
 Laboratory ID: 108194-08RA1
 Sampled: 06-18-07 15:20
 Received: 06-19-07 18:15
 Analyzed: 07-07-07 14:58
 Analyst: CCT

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2548-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 50

Page. 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	25
74-87-3	Chloromethane	BRL		ug/L	25
75-01-4	Vinyl Chloride	BRL		ug/L	25
74-83-9	Bromomethane	BRL		ug/L	25
75-00-3	Chloroethane	BRL		ug/L	25
75-69-4	Trichlorofluoromethane	BRL		ug/L	25
60-29-7	Diethyl Ether	BRL		ug/L	100
75-35-4	1,1-Dichloroethene	BRL		ug/L	25
76-13-1	1,1,2-Trichlorotrifluoroethane	710		ug/L	250
67-64-1	Acetone	BRL		ug/L	500
75-15-0	Carbon Disulfide	BRL		ug/L	250
75-09-2	Methylene Chloride	BRL		ug/L	130
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	25
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/L	25
75-34-3	1,1-Dichloroethane	BRL		ug/L	25
594-20-7	2,2-Dichloropropane	BRL		ug/L	25
156-59-2	cis-1,2-Dichloroethene	210		ug/L	25
78-93-3	2-Butanone (MEK)	BRL		ug/L	250
74-97-5	Bromochloromethane	BRL		ug/L	25
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	250
67-66-3	Chloroform	BRL		ug/L	25
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	25
56-23-5	Carbon Tetrachloride	BRL		ug/L	25
563-58-6	1,1-Dichloropropene	BRL		ug/L	25
71-43-2	Benzene	BRL		ug/L	25
107-06-2	1,2-Dichloroethane	BRL		ug/L	25
79-01-6	Trichloroethene	2,000		ug/L	25
78-87-5	1,2-Dichloropropane	BRL		ug/L	25
74-95-3	Dibromomethane	BRL		ug/L	25
75-27-4	Bromodichloromethane	BRL		ug/L	25
123-91-1	1,4-Dioxane	BRL		ug/L	25,000
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	25
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	250
108-88-3	Toluene	BRL		ug/L	25
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	25
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	25
127-18-4	Tetrachloroethene	340		ug/L	25
142-28-9	1,3-Dichloropropane	BRL		ug/L	25
591-78-6	2-Hexanone	BRL		ug/L	250
124-48-1	Dibromochloromethane	BRL		ug/L	25
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	25
108-90-7	Chlorobenzene	BRL		ug/L	25
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	25
100-41-4	Ethylbenzene	BRL		ug/L	25
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	25
95-47-6	ortho-Xylene	BRL		ug/L	25

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued) Volatile Organics by GC/MS

Field ID: MW-213S
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-08RA1
 Sampled: 06-18-07 15:20
 Received: 06-19-07 18:15
 Analyzed: 07-07-07 14:58
 Analyst: CCT

Matrix: Aqueous
 Container: 40 mL VOA Vial
 Preservation: HCl/Cool
 QC Batch ID: VM7-2548-W
 Instrument ID: MS-7 Agilent 6890
 Sample Volume: 25 mL
 Dilution Factor: 50

Page 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	25
75-25-2	Bromoform	BRL		ug/L	25
98-82-8	Isopropylbenzene	BRL		ug/L	25
108-86-1	Bromobenzene	BRL		ug/L	25
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	25
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	25
103-65-1	n-Propylbenzene	BRL		ug/L	25
95-49-8	2-Chlorotoluene	BRL		ug/L	25
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	25
106-43-4	4-Chlorotoluene	BRL		ug/L	25
98-06-6	tert-Butylbenzene	BRL		ug/L	25
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	25
135-98-8	sec-Butylbenzene	BRL		ug/L	25
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	25
99-87-6	4-Isopropyltoluene	BRL		ug/L	25
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	25
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	25
104-51-8	n-Butylbenzene	BRL		ug/L	25
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	25
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	25
87-68-3	Hexachlorobutadiene	BRL		ug/L	25
91-20-3	Naphthalene	BRL		ug/L	25
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	25
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	1,000
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	25
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	25
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	25
QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits	
Dibromofluoromethane	10	12	118 %	70 - 130 %	
1,2-Dichloroethane-d ₄	10	10	102 %	70 - 130 %	
Toluene-d ₈	10	9.9	99 %	70 - 130 %	
4-Bromofluorobenzene	10	9.4	94 %	70 - 130 %	

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B.

Report Notations: BRL: Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: **GEO-2**
 Project: **60 Olympia/2491-005**
 Client: **Geolnsght, Inc.**
 Laboratory ID: **108194-9**
 Sampled: **06-18-07 11:20**
 Received: **06-19-07 18:15**
 Preserved: **06-18-07 11:20**

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B ¹	MB-2757-W	EPA 3010A	06-20-07 08:20	50 mL	ICP-2 PE 3300	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Total	4.5		mg/L	0.1	1	06-21-07 10:00	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 DF Dilution Factor.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID:	GEO-6	Matrix:	Aqueous
Project:	60 Olympia/2491-005	Container:	250 mL Plastic
Client:	GeoInsight, Inc.	Preservation:	HNO3 / Cool
Laboratory ID:	108194-10	Preserved:	06-18-07 11:25
Sampled:	06-18-07 11:25		
Received:	06-19-07 18:15		
<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Instrument ID</u>
EPA 6010B ¹	MB-2757-W	EPA 3010A	ICP-2 PE 3300
CAS Number	Analyte	Concentration	Notes
7439-89-6	Iron, Total	3.2	mg/L
		0.1	1
		06-21-07 10:10	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor

GROUNDWATER ANALYTICAL

MB Trace Metals

Field ID: MW-304 C EO -8 9/21/2007

Project: 60 Olympia/2491-005
Client: GeoInsight, Inc.

Laboratory ID: 108194-11
Sampled: 06-18-07 12:45
Received: 06-19-07 18:15

Matrix: Aqueous
Container: 250 mL Plastic
Preservation: HNO3 / Cool

Preserved: 06-18-07 12:45

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B ¹	MB-2757-W	EPA 3010A	06-20-07 08:20	50 mL	ICP-2 PE 3300	MWR
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF
7439-89-6	Iron, Total	69		mg/L	0.3	1
					06-21-07 10:13	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: MW-302 GBO-9 *Imp 9/11/2002*
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.
 Laboratory ID: 108194-12
 Sampled: 06-18-07 12:55
 Received: 06-19-07 18:15
 Matrix: Aqueous
 Container: 250 mL Plastic
 Preservation: HNO3 / Cool
 Preserved: 06-18-07 12:55

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B ¹	MB-2757-W	EPA 3010A	06-20-07 08:20	50 mL	ICP-2 PE 3300	MWR

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update II (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
 DF Dilution Factor

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: MW-213M
 Project: 60 Olympia/2491-005
 Client: Geolnsight, Inc.
 Laboratory ID: 108194-13
 Sampled: 06-18-07 14:10
 Received: 06-19-07 18:15
 Preserved: 06-18-07 14:10

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B ¹	MB-2757-W	EPA 3010A	06-20-07 08:20	50 mL	ICP-2 PE 3300	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Total	6.6		mg/L	0.1	1	06-21-07 10:20	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: **MW-014S**
 Project: **60 Olympia/2491-005**
 Client: **GeoInsight, Inc.**

Matrix: **Aqueous**
 Container: **250 mL Plastic**
 Preservation: **HNO3 / Cool**

Laboratory ID: **108194-14**
 Sampled: **06-18-07 14:25**
 Received: **06-19-07 18:15**

Preserved: **06-18-07 14:25**

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B ¹	MB-2757-W	EPA 3010A	06-20-07 08:20	50 mL	ICP-2 PE 3300	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Total	2.7		mg/L	0.1	1	06-21-07 10:30	EPA 6010B

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Report Notations: BRL - indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF - Dilution Factor

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: MW-013
Project: 60 Olympia/2491-005
Client: Geolnsght, Inc.
Laboratory ID: 108194-15
Sampled: 06-18-07 15:20
Received: 06-19-07 18:15
Matrix: Aqueous
Container: 250 mL Plastic
Preservation: HNO3 / Cool
Preserved: 06-18-07 15:20

Analysis Method QC Batch ID Prep Method Prepared Sample Volume Instrument ID Analyst
EPA 6010B¹ MB-2757-W EPA 3010A 06-20-07 08:20 50 mL ICP-2 PE 3300 MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Total	1.9		mg/L	0.1	1	06-21-07 10:34	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: MW-213S
 Project: 60 Olympia/2491-005
 Client: Geolnsght, Inc.
 Laboratory ID: 108194-16
 Sampled: 06-18-07 15:20
 Received: 06-19-07 18:15

Matrix: Aqueous
 Container: 250 mL Plastic
 Preservation: HNO3 / Cool
 Preserved: 06-18-07 15:20

Analysis Method

EPA 6010B¹

QC Batch ID

MB-2757-W

Prep Method

EPA 3010A

Prepared

06-20-07 08:20

Sample Volume

50 mL

Instrument ID

ICP-2 PE 3300

Analyst

MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Total	2.3		mg/L	0.1	1	06-21-07 10:37	EPA 6010B ¹

Method Reference: Test Method for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update II (1996)

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 DF Dilution Factor

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: **GEO-7**
 Project: **60 Olympia/2491-005**
 Client: **GeoInsight, Inc.**
 Laboratory ID: **108194-17**
 Sampled: **06-18-07 11:20**
 Received: **06-19-07 18:15**
 Matrix: **Aqueous**
 Container: **250 mL Plastic**
 Preservation: **HNO3 / Cool**
 Preserved: **06-18-07 11:20**
 Filtered: **06-18-07 11:20**

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B ¹	MB-2758-W	EPA 3010A	06-20-07 08:22	50 mL	ICP-2 PE 3300	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Dissolved	BRL		mg/L	0.1	1	06-21-07 11:11	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 DF Dilution Factor.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: **GEO-6**
 Project: **60 Olympia/2491-005**
 Client: **GeoInsight, Inc.**

Laboratory ID: **108194-18**
 Sampled: **06-18-07 11:25**
 Received: **06-19-07 18:15**

Matrix: **Aqueous**
 Container: **250 mL Plastic**
 Preservation: **HNO3 / Cool**

Preserved: **06-18-07 11:25**
 Filtered: **06-18-07 11:25**

<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>	<u>Sample Volume</u>	<u>Instrument ID</u>	<u>Analyst</u>
EPA 6010B ¹	MB-2758-W	EPA 3010A	06-20-07 08:22	50 mL	CP-2 PE 3300	MWR
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF
7439-89-6	Iron, Dissolved	BRL		mg/L	0.1	1
					06-21-07 11:22	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
 DF Dilution Factor.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: **MWR981 G EO-8** Date **9/1/2007**
 Project: **60 Olympia/2491-005**
 Client: **GeoInsight, Inc.**
 Laboratory ID: **108194-19**
 Sampled: **06-18-07 12:45**
 Received: **06-19-07 18:15**
 Matrix: **Aqueous**
 Container: **250 mL Plastic**
 Preservation: **HNO3 / Cool**
 Preserved: **06-18-07 12:45**
 Filtered: **06-18-07 12:45**

<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>	<u>Sample Volume</u>	<u>Instrument ID</u>	<u>Analyst</u>
EPA 6010B [†]	MB-2758-W	EPA 3010A	06-20-07 08.22	50 mL	ICP-2 PE 3300	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Dissolved	0.2		mg/L	0.1	1	06-21-07 11:25	EPA 6010B [†]

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
 DF Dilution Factor

GROUNDWATER ANALYTICAL

cm3 Trace Metals

Field ID: MW-302 G EO ~ 9 9/1/2007 Matrix: Aqueous
 Project: 60 Olympia/2491-005 Container: 250 mL Plastic
 Client: Geolnsght, Inc. Preservation: HNO3 / Cool
 Laboratory ID: 108194-20 Preserved: 06-18-07 12:55
 Sampled: 06-18-07 12:55 Filtered: 06-18-07 12:55
 Received: 06-19-07 18:15

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 601CB ¹	MB-275B-W	EPA 3010A	06-20-07 08:22	50 mL	ICP-2 PE 3300	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Dissolved	2.6		mg/L	0.1	1	06-21-07 11:28	EPA 601CB ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL: Indicates concentration, if any, is below reporting limit for analyte Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions Reporting limits are adjusted for sample size and dilution.

DF: Dilution Factor

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: **MW-213M**
 Project: **60 Olympia/2491-005**
 Client: **Geolnsght, Inc.**
 Laboratory ID: **108194-21**
 Sampled: **06-18-07 14:10**
 Received: **06-19-07 18:15**

Matrix: **Aqueous**
 Container: **250 mL Plastic**
 Preservation: **HNO3 / Cool**
 Preserved: **06-18-07 14:10**
 Filtered: **06-18-07 14:10**

<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>	<u>Sample Volume</u>	<u>Instrument ID</u>	<u>Analyst</u>
EPA 6010B ¹	MB-2758-W	EPA 3010A	06-20-07 08:22	50 mL	ICP-2 PE 3300	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Dissolved	4.8		mg/L	0.1	1	06-21-07 11:32	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL: Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
 DF: Dilution Factor.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID:	MW-014S	Matrix:	Aqueous					
Project:	60 Olympia/2491-005	Container:	250 mL Plastic					
Client:	GeoInsight, Inc.	Preservation:	HNO3 / Cool					
Laboratory ID:	108194-22	Preserved:	06-18-07 14:25					
Sampled:	06-18-07 14:25	Filtered:	06-18-07 14:25					
Received:	06-19-07 18:15							
<u>Analysis Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>					
EPA 6010B ¹	MB-2758-W	EPA 3010A	06-20-07 08:22					
<u>Sample Volume</u>		50 mL						
<u>Instrument ID</u>		ICP-2 PE 3300						
<u>Analyst</u>			MWR					
CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Dissolved	2.2		mg/L	0.1	1	06-21-07 11:35	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: **MW-013**
 Project: **60 Olympia/2491-005**
 Client: **GeoInsight, Inc.**
 Laboratory ID: **108194-23**
 Sampled: **06-18-07 15:20**
 Received: **06-19-07 18:15**

Matrix: **Aqueous**
 Container: **250 mL Plastic**
 Preservation: **HNO₃ / Cool**
 Preserved: **06-18-07 15:20**
 Filtered: **06-18-07 15:20**

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B ¹	MB-2758-W	EPA 3010A	06-20-07 08:22	50 mL	KP-2 PE 3300	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Dissolved	1.7		mg/L	0.1	1	06-21-07 11:39	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Report Notations: BRL indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

DF Dilution Factor

GROUNDWATER ANALYTICAL

Trace Metals

Field ID: MW-2135
Project: 60 Olympia/2491-005
Client: GeoInsight, Inc.
Laboratory ID: 108194-24
Sampled: 06-18-07 15:20
Received: 06-19-07 18:15

Matrix: Aqueous
Container: 250 mL Plastic
Preservation: HNO3 / Cool
Preserved: 06-18-07 15:20
Filtered: 06-18-07 15:20

Analysis Method

EPA 6010B¹

QC Batch ID

MB-2758-W

Prep Method

EPA 3010A

Prepared

06-20-07 08:22

Sample Volume

50 mL

Instrument ID

ICP-2 PE 3300

Analyst

MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron, Dissolved	4.1		mg/L	0.1	1	06-21-07 11:42	EPA 6010B ¹

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

DF Dilution Factor.

}

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: GEO-7
 Project: 60 Olympia/2491-005
 Client: Geolnsght, Inc.

Matrix: Aqueous
 Received: 06-19-07 18:15

Lab ID: 108194-25 Sampled: 06-18-07 11:20

Container: 250 mL Plastic

Preservation: Cool

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Nitrate (as Nitrogen)	0.58	mg/L	0.02	1	5 mL	06-19-07 20:18	NI-3459-W	Lach 101074041-C (SM) 4500-N03 F1	1	LJD
Sulfate	12	mg/L	3	10	0.5 mL	06-25-07 11:31	IC-1059-W	EPA 9056	2	KLB

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998); and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RL Reporting Limit

DF Dilution Factor.

1 Instrument ID: Lachat 8000 Autoanalyzer

2 Instrument ID: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: GEO-6
 Project: 60 Olympia/2491-005
 Client: Geolnsght, Inc.

Matrix: Aqueous
 Received: 06-19-07 18:15

Lab ID:	108194-26	Sampled:	06-18-07 11:25	Container:	250 mL Plastic	Preservation:			Cool		
Analyte		Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Nitrate (as Nitrogen)		0.31	mg/L	0.02	1	5 mL	06-19-07 20:22	NI-3459-W	Lachat 10-10704-1 C15W 4000NCF	1	LID
Sulfate		10	mg/L	3	10	0.5 mL	06-25-07 12:08	IC-1059-W	EPA 9056	2	KLB

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL: Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RL: Reporting Limit

DF: Dilution Factor.

1: Instrument I: Lachat 8000 Autoanalyzer

2: Instrument II: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: MW-301 GED-8 COT 9/21/2007
 Project: 60 Olympia/2491-005
 Client: Geolnsght, Inc.

Matrix: Aqueous
 Received: 06-19-07 18:15

Lab ID:	108194-27	Sampled:	06-18-07 12:45	Container: 250 mL Plastic				Preservation: Cool			
Analyte		Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Nitrate (as Nitrogen)		0.07	mg/L	0.02	1	5 mL	06-19-07 20:23	NI-3450-W	LICN 10-107404-1-C (SM) 4500-400 P	1	LJD
Sulfate		53	mg/L	3	10	0.5 mL	06-25-07 12:20	JC-1059-W	EPA 9056	2	KLB

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RL Reporting Limit.

DF Dilution Factor.

1 Instrument ID: Lachat 8000 Autoanalyzer

2 Instrument ID: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: MW-392 G EO-01 OnP 9/21/2002

Matrix: Aqueous

Project: 60 Olympia/2491-005

Received: 06-19-07 18:15

Client: GeoInsight, Inc.

Lab ID:	108194-28	Sampled:	06-18-07 12:55	Container: 250 mL Plastic			Preservation: Cool				
Analyte		Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Nitrate (as Nitrogen)		BRL	mg/L	0.02	1	5 mL	06-19-07 20:24	NI-3459-W	Lachat 10-107204 LC (SM) 2500-00372	1	UD
Sulfate		30	mg/L	3	10	0.5 mL	06-25-07 12:33	IC-1059-W	EPA 9056	2	KLB

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

RL Reporting Limit

DF Dilution Factor

1 Instrument ID: Lachat 3000 Autoanalyzer

2 Instrument ID: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: MW-213M
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.

Matrix: Aqueous
 Received: 06-19-07 18:15

Lab ID: 108194-29 Sampled: 06-18-07 14:10

Container: 250 mL Plastic

Preservation: Cool

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Nitrate (as Nitrogen)	BRL	mg/L	0.02	1	5 mL	06-19-07 20:25	NI-3459-W	Lachat 01072041 IC (SM 4500ANO1F)	1	IJD
Sulfate	37	mg/L	3	10	0.5 mL	06-25-07 12:45	IC-1059-W	EPA 9056	2	KLB

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RL Reporting Limit.

DF Dilution Factor.

1 Instrument ID: Lachat 8000 Autoanalyzer

2 Instrument ID: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: MW-014S
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.

Matrix: Aqueous
 Received: 06-19-07 18:15

Lab ID:	108194-30	Sampled	06-18-07 14:25	Container: 250 mL Plastic			Preservation: Cool				
Analyte		Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Nitrate (as Nitrogen)		BRL	mg/L	0.02	1	5 mL	06-19-07 20:28	14-3459-W	Lach 10-1070-1 C10K 4400403 F1	1	LJD
Sulfate		51	mg/L	3	10	0.5 mL	06-25-07 12:57	IC-1059-W	EPA 9056	2	KLB

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RL Reporting Limit.

DF Dilution Factor.

1 Instrument ID: Lachat 8000 Autoanalyzer

2 Instrument ID: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: MW-013
 Project: 60 Olympia/2491-005
 Client: GeoInsight, Inc.

Matrix: Aqueous
 Received: 06-19-07 18:15

Lab ID:	108194-31	Sampled:	06-18-07 15:20	Container:	250 mL Plastic	Preservation:	Cool				
Analyte		Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Nitrate (as Nitrogen)		BRL	mg/L	0.02	1	5 mL	06-19-07 20:30	NI-3459-W	Lachat 10704-1-C (SM) 4500-N03(F)	1	JJD
Sulfate		34	mg/L	3	10	0.5 mL	06-25-07 13:10	IC-1059-W	EPA 9056	2	KLB

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Report Notations:

- BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
- RL Reporting Limit.
- DF Dilution Factor.
- 1 Instrument ID: Lachat 8000 Autoanalyzer
- 2 Instrument ID: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: MW-2135
Project: 60 Olympia/2491-005
Client: GeoInsight, Inc.

Matrix: Aqueous
Received: 06-19-07 18:15

Lab ID: 108194-32 Sampled: 06-18-07 15:20 Container: 250 mL Plastic Preservation: Cool

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Nitrate (as Nitrogen)	BRL	mg/L	0.02	1	5 mL	06-19-07 20:31	NI-3459-W	Lachat 8000 Autoanalyzer (IC-500-NH3-NH4)	1	LJD
Sulfate	27	mg/L	3	10	0.5 mL	06-25-07 13:22	IC-1059-W	EPA 9036	2	KLB

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RL Reporting Limit

DF Dilution Factor

1 Instrument ID Lachat 8000 Autoanalyzer

2 Instrument ID Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Project Narrative

Project: **60 Olympia/2491-005**
Client: **GeoInsight, Inc.**

Lab ID: **108194**
Received: **06-19-07 18:15**

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. EPA 8260B Non-conformance: Samples 108194-07 and -08. Reported results for selected analytes exceeded the high standard of the associated calibration curve. Results are estimated. Sample was reanalyzed and reported with all analytes within calibration.
2. EPA 8260B Non-conformance: Samples 108194-08RA1. Laboratory control sample (LCS) analyte 1,1,2-Trichlorotrifluoroethane was above recommended recovery limits for QC batch VM7-2548-W.
3. EPA 8260B Non-conformance: Samples 108194-07RA1. Laboratory control sample (LCS) analytes 1,1,2-Trichlorotrifluoroethane, 2,2-Dichloropropane were above recommended recovery limits for QC batch VM7-2549-W.
4. EPA 8260B Non-conformance: Samples 108194-07RA1 and -08RA1. Confirmatory analyses were analyzed outside of the recommended holding time.
5. EPA 8260B Note: Sample 108194-7 and -08. Sample was diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
6. EPA 8260B Non-conformance: Samples 108194-01 through -07, -08. Laboratory control sample duplicate (LCSD) Analyte: 4-Dioxane was above recommended limits, and Acetone had an RPD above recommended limits for QC batch VM7-2542-W.

GROUNDWATER ANALYTICAL

268 Main Street P.O. Box 1200
Buzzards Bay, MA 02532
Telephone (508) 759-4441 • FAX (508) 759-4475
www.groundwateranalytical.com

CHAIN-OF-CUSTODY RECORD AND WORK ORDER

Project Name:	Firm:
JG Olympia	GroInSight
Project Number:	Address:
2191-005	5 Linn Drive, Suite 200
Sampler Name:	City / State / Zip:
RSE, JRF	Westford, MA 01886
Project Manager:	Telephone:
CAB	978-692-1114

INSTRUCTIONS: Use separate line for each container (except replicates).

Sampling		SAMPLE IDENTIFICATION	Matrix	Type	Container(s)	Preservation	Plated	TURNAROUND		ANALYSIS REQUEST		Metals	Petrochemicals	Organic Compounds	Organic Solvents	Herbicides	General Chemistry	Other
DATE	TIME							OPTION	TESTS	CONTAMINANTS	TESTS							
6/18	11:20	GEO-7	X	X	X	X	X	STANDARD (10 Business Days)										
6/18	11:25	GEO-10	X	X	X	X	X	PRIORITY (5 Business Days)										
6/18	12:45	MW-201	X	X	X	X	X	RUSH (RAN - Rush Authorization Number)										
6/18	12:55	MW-302	X	X	X	X	X	Please Email to CABinfo@geoinsight.com										
6/18	14:12	MW-213 M	X	X	X	X	X	Please FAX to:										
6/18	14:25	MW-045	X	X	X	X	X	BILLING										
6/18	15:20	MW-013	X	X	X	X	X	Purchase Order No.:										
6/18	15:35	MW-0135	X	X	X	X	X	Third Party Billing:										
								GWA Quote:										

REMARKS / SPECIAL INSTRUCTIONS

DATA QUALITY OBJECTIVES

CHAIN-OF-CUSTODY RECORD

YES NO MCP Data Certification required.

YES NO MCP Drinking Water Sample included.

(Volatile analytes require duplicate collection and Trip Blanks)

* Analyze Duplicates and Trip Blanks only if positive results.

YES NO MCP Data Certification required.

Signature: _____

Regulatory Program

State Standard Deliverables

✓ CT MCP GW 1-S-1 PWS Form

✓ ME MCP GW 2-S-2 MWRA

✓ MA NY STARS

✓ NH Drinking Water

✓ NY Wastewater

✓ RI Waste Disposal

✓ VT Dredge Material

✓ DE

Project Specific QC

Many regulatory programs and EPA methods require project specific QC. Project specific QC includes Sample Duplicates, Matrix Spikes, and/or Matrix Spike Duplicates. Laboratory QC is not project specific unless prearranged. Project specific QC samples are charged on a per sample basis. Each MS, MSD and Sample Duplicate requires an additional sample aliquot.

Project Specific QC Required Selection of QC Sample

Sample Duplicate

Matrix Spike

Matrix Spike Duplicate

NOTE: All samples submitted subject to Standard Terms and Conditions on reverse hereof.

Released by Sampler:	Date	Time	Received by	Recept Temperature
Renée S. Eggers	6/19/07	12:37	Alan Maddigan	20°C
Released by	Date	Time	Received by	Container Count
Alan Maddigan	6/19/07	1:15	Steve Almeida	48
Released by	Date	Time	Received by Laboratory	Shipping Airbill Number
Steve Almeida				
Method of Shipment: <input type="checkbox"/> GWA Courier <input type="checkbox"/> Express Mail <input type="checkbox"/> Federal Express				
<input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/>				
Customer Seal Number: _____				

GROUNDWATER ANALYTICAL

Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste*, US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

GROUNDWATER ANALYTICAL

Quality Control Report Laboratory Control Sample

Category: **Inorganic Chemistry**

Matrix: **Aqueous**

Analyte	Units	Spiked	Measured	Recovery	QC Limits	Analyzed	QC Batch	Method	Inst	Analyst
Sulfate	mg/L	8	8	103 %	80 - 120 %	06-25-07 11:06	KC-1059-W	EPA 9056	2	KLB
Nitrite (as Nitrogen)	mg/L	0.50	0.50	100 %	80 - 120 %	06-19-07 20:17	NI-3459-W	Lachat 10-107-04-1-C ISM 4500-N03 F	1	LJD
Nitrate (as Nitrogen)	mg/L	0.50	0.49	98 %	80 - 120 %	06-19-07 20:17	NI-3459-W	Lachat 10-107-04-1-C ISM 4500-N03 F	1	LJD

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

- 1 Instrument ID: Lachat 8000 Autoanalyzer
- 2 Instrument ID: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Quality Control Report Method Blank

Category: Inorganic Chemistry

Matrix: Aqueous

Analyte	Result	Units	RL	Analyzed	QC Batch	Method	Inst	Analyst
Sulfate	BRL	mg/L	3	06-25-07 11:06	IC-1059-W	EPA 9056	2	KLB
Nitrite (as Nitrogen)	BRL	mg/L	0.02	06-19-07 20:17	NI-3459-W	Lachat 10-107-041-C (SM 4500-NO2 F)	1	UD
Nitrate (as Nitrogen)	BRL	mg/L	0.02	06-19-07 20:17	NI-3459-W	Lachat 10-107-041-C (SM 4500-NO3 F)	1	UD

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update II (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RL Reporting Limit.

1 Instrument ID: Lachat 8000 Autoanalyzer

2 Instrument ID: Dionex DX-500 IC

GROUNDWATER ANALYTICAL

Quality Control Report Laboratory Control Samples

Category: **Metals**

Matrix: **Aqueous**

Units: **mg/L**

<u>Sample Type</u>	<u>Method</u>	<u>QC Batch ID</u>	<u>Prep Method</u>	<u>Prepared</u>		<u>Analyzed</u>		<u>Instrument ID</u>	<u>Analyst</u>				
LCS	EPA 6010B	MB-2757-WL	EPA 3010A	06-20-07	08:20	06-21-07	09:53	ICP-2 PE 3300	MWR				
LCSD	EPA 6010B	MB-2757-WL	EPA 3010A	06-20-07	08:20	06-21-07	09:56	ICP-2 PE 3300	MWR				
<u>CAS Number</u>		<u>Analyte</u>		<u>LCS</u>		<u>LCS Duplicate</u>		<u>QC Limits</u>					
				Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	<u>LCS</u>	<u>RPD</u>	<u>Method</u>
7439-89-6		Iron		5.0	4.7	95%	5.0	4.8	96%	1 %	80-120 %	20 %	EPA 6010B

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report Method Blank

Category: **Metals**
Matrix: **Aqueous**

Analysis Method QC Batch ID Prep Method Prepared Sample Volume Instrument ID Analyst
EPA 6010B MB-2757-WB EPA 3010A 06-20-07 08:20 50 mL ICP-2 PE 3300 MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron	BRL		mg/L	0.1	1	06-21-07 09:50	EPA 6010B

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution
DF Dilution factor.

GROUNDWATER ANALYTICAL

Quality Control Report Laboratory Control Samples

Category: **Metals**

Matrix: **Aqueous**

Units: **mg/L**

Sample Type	Method	QC Batch ID	Prep Method	Prepared	Analyzed	Instrument ID	Analyst
LCS	EPA 6010B	MB-2758-WL	EPA 3010A	06-20-07 08:22	06-21-07 10:58	ICP-2 PE 3300	MWR
LCSD	EPA 6010B	MB-2758-WL	EPA 3010A	06-20-07 08:22	06-21-07 11:01	ICP-2 PE 3300	MWR

CAS Number	Analyte	LCS			LCS Duplicate			QC Limits		Method	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	LCS		
7439-89-6	Iron	5.0	4.4	89%	5.0	4.9	98%	5 %	80-120 %	20 %	EPA 6010B

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update II (1996).

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report Method Blank

Category: **Metals**
Matrix: **Aqueous**

Analysis Method QC Batch ID Prep Method Prepared Sample Volume Instrument ID Analyst
EPA 6010B MB-2758-WB EPA 3010A 06-20-07 08:22 50 mL ICP-2 PE 3300 MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7439-89-6	Iron	BRL		mg/L	0.1	1	06-21-07 10:54	EPA 6010B

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996)

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.
DF Dilution Factor.

GROUNDWATER ANALYTICAL

Quality Control Report Laboratory Control Samples

Category: EPA Method 8260B
 QC Batch ID: VM7-2542-WL
 Matrix: Aqueous
 Units: ug/L

LCS
 Instrument ID: MS-7 Agilent 6890
 Analyzed: 07-02-07 09:53
 Analyst: KMC

LCSD
 Instrument ID: MS-7 Agilent 6890
 Analyzed: 07-02-07 10:21
 Analyst: KMC

Page: 1 of 2

CAS Number	Analyte	LCS			LCS Duplicate			QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike
75-71-8	Dichlorodifluoromethane	5	4.2	84 %	5	4.1	81 %	4 %	70 - 130 % 25%
74-87-3	Chloromethane	5	5.2	104 %	5	4.9	99 %	5 %	70 - 130 % 25%
75-01-4	Vinyl Chloride	5	5.2	105 %	5	5	100 %	5 %	70 - 130 % 25%
74-83-9	Bromomethane	5	5.5	110 %	5	5.3	106 %	4 %	70 - 130 % 25%
75-00-3	Chloroethane	5	5.3	105 %	5	5	100 %	5 %	70 - 130 % 25%
75-69-4	Trichlorofluoromethane	5	4.6	93 %	5	4.5	90 %	3 %	70 - 130 % 25%
60-29-7	Diethyl Ether	10	11	113 %	10	11	111 %	2 %	70 - 130 % 25%
75-35-4	1,1-Dichloroethene	5	4.8	96 %	5	4.6	92 %	4 %	70 - 130 % 25%
76-13-1	1,1,2-Trichlorotrifluoroethane	10	12	116 %	10	11	109 %	6 %	70 - 130 % 25%
67-64-1	Acetone	10	7.5	75 %	10	11	114 %	42 % q	70 - 130 % 25%
75-15-0	Carbon Disulfide	10	11	106 %	10	10	102 %	4 %	70 - 130 % 25%
75-09-2	Methylene Chloride	5	6.1	122 %	5	6	121 %	1 %	70 - 130 % 25%
156-60-5	trans 1,2-Dichloroethene	5	5.2	104 %	5	5	100 %	4 %	70 - 130 % 25%
1634-04-4	Methyl tert-butyl Ether (MTBE)	5	6	120 %	5	5.9	118 %	2 %	70 - 130 % 25%
75-34-3	1,1-Dichloroethane	5	5.6	113 %	5	5.3	107 %	5 %	70 - 130 % 25%
594-20-7	2,2-Dichloropropane	5	5.9	118 %	5	5.7	114 %	4 %	70 - 130 % 25%
156-59-2	cis 1,2-Dichloroethene	5	5.6	111 %	5	5.3	105 %	5 %	70 - 130 % 25%
78-93-3	2-Butanone (MVK)	10	10	104 %	10	11	107 %	2 %	70 - 130 % 25%
74-97-5	Bromochloromethane	5	6	120 %	5	5.9	119 %	1 %	70 - 130 % 25%
109-59-9	Tetrahydrofuran (THF)	10	9.6	96 %	10	11	108 %	12 %	70 - 130 % 25%
67-66-3	Chloroform	5	5.8	115 %	5	5.5	111 %	4 %	70 - 130 % 25%
71-55-6	1,1,1-Trichloroethane	5	4.6	91 %	5	4.5	89 %	2 %	70 - 130 % 25%
56-23-5	Carbon Tetrachloride	5	4.6	92 %	5	4.6	92 %	0 %	70 - 130 % 25%
563-58-6	1,1-Dichloropropene	5	4.1	83 %	5	4.1	82 %	0 %	70 - 130 % 25%
71-43-2	Benzene	5	4.7	95 %	5	4.7	94 %	1 %	70 - 130 % 25%
107-06-2	1,2-Dichloroethane	5	5.2	104 %	5	5.1	105 %	1 %	70 - 130 % 25%
79-01-6	Trichloroethene	5	4.7	93 %	5	4.5	90 %	4 %	70 - 130 % 25%
78-87-5	1,2-Dichloropropane	5	5	99 %	5	5	101 %	1 %	70 - 130 % 25%
74-95-3	Dibromomethane	5	5.6	112 %	5	5.5	111 %	1 %	70 - 130 % 25%
75-27-4	Bromodichloromethane	5	5.5	111 %	5	5.4	108 %	2 %	70 - 130 % 25%
123-91-1	1,4-Dioxane	100	110	107 %	100	130	132 % q	21 %	70 - 130 % 25%
10061-01-5	cis 1,3-Dichloropropene	5	5	100 %	5	4.9	98 %	2 %	70 - 130 % 25%
108-10-1	4-Methyl-2-Pentanone (MIBK)	10	9.9	99 %	10	10	104 %	5 %	70 - 130 % 25%
108-88-3	Toluene	5	5.3	105 %	5	5.1	101 %	4 %	70 - 130 % 25%
10061-C2-6	trans 1,3-Dichloropropene	5	4.7	93 %	5	4.6	92 %	2 %	70 - 130 % 25%
79-00-5	1,1,2-Trichloroethane	5	5.4	107 %	5	5.4	108 %	0 %	70 - 130 % 25%
127-18-4	Tetrachloroethene	5	4.5	89 %	5	4.3	86 %	3 %	70 - 130 % 25%
142-28-9	1,3-Dichloropropane	5	5.5	110 %	5	5.5	111 %	0 %	70 - 130 % 25%
591-78-6	2-Hexanone	10	9.1	91 %	10	9.7	97 %	6 %	70 - 130 % 25%
124-48-1	Dibromochloromethane	5	5.5	109 %	5	5.4	107 %	2 %	70 - 130 % 25%
106-93-4	1,2-Dibromoethane (EDB)	5	5.3	105 %	5	5.3	106 %	0 %	70 - 130 % 25%
108-90-7	Chlorobenzene	5	5.1	102 %	5	5	99 %	3 %	70 - 130 % 25%
630-20-6	1,1,1,2-Tetrachloroethane	5	5	100 %	5	4.9	99 %	1 %	70 - 130 % 25%
100-41-4	Ethylbenzene	5	4.8	96 %	5	4.7	94 %	2 %	70 - 130 % 25%
108-38-3/106-42-3	meta Xylene and para Xylene	10	10	101 %	10	9.8	98 %	3 %	70 - 130 % 25%
95-47-6	ortho-Xylene	5	5	100 %	5	4.9	97 %	3 %	70 - 130 % 25%
100-42-5	Styrene	5	4.8	97 %	5	4.8	95 %	2 %	70 - 130 % 25%
75-25-2	Bromoform	5	5.5	110 %	5	5.5	110 %	1 %	70 - 130 % 25%
98-82-8	Isopropylbenzene	5	4.6	91 %	5	4.5	89 %	2 %	70 - 130 % 25%

Page 59 of 67

GROUNDWATER ANALYTICAL

Quality Control Report Laboratory Control Samples

Category: **EPA Method 8260B**
 QC Batch ID: **VM7-2542-WL**
 Matrix: **Aqueous**
 Units: **ug/L**

LCS
 Instrument ID: **MS-7 Agilent 6890**
 Analyzed: **07-02-07 09:53**
 Analyst: **KMC**

LCSD
 Instrument ID: **MS-7 Agilent 6890**
 Analyzed: **07-02-07 10:21**
 Analyst: **KMC**

Page: **2 of 2**

CAS Number	Analyte	LCS			LCS Duplicate			QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	RPD
108-86-1	Bromobenzene	5	4.8	97 %	5	4.7	95 %	2 %	70 - 130 % 25%
79-34-5	1,1,2,2-Tetrachloroethane	5	5.7	114 %	5	5.8	117 %	2 %	70 - 130 % 25%
96-18-4	1,2,3-Trichloropropane	5	6	120 %	5	6	119 %	1 %	70 - 130 % 25%
103-65-1	n-Propylbenzene	5	4.7	94 %	5	4.6	92 %	2 %	70 - 130 % 25%
95-49-8	2-Chlorotoluene	5	4.8	95 %	5	4.7	94 %	1 %	70 - 130 % 25%
108-67-8	1,3,5-Trimethylbenzene	5	4.7	93 %	5	4.6	91 %	2 %	70 - 130 % 25%
106-43-4	4-Chlorotoluene	5	4.8	96 %	5	4.8	95 %	1 %	70 - 130 % 25%
98-06-6	tert-Butylbenzene	5	4.6	92 %	5	4.5	90 %	1 %	70 - 130 % 25%
95-63-6	1,2,4-Trimethylbenzene	5	5	99 %	5	4.9	98 %	1 %	70 - 130 % 25%
135-98-8	sec-Butylbenzene	5	4.8	95 %	5	4.7	93 %	2 %	70 - 130 % 25%
541-73-1	1,3-Dichlorobenzene	5	4.9	99 %	5	4.9	98 %	1 %	70 - 130 % 25%
99-87-6	4-Isopropyltoluene	5	4.8	96 %	5	4.8	95 %	1 %	70 - 130 % 25%
106-46-7	1,4-Dichlorobenzene	5	4.9	99 %	5	4.8	97 %	2 %	70 - 130 % 25%
95-50-1	1,2-Dichlorobenzene	5	5.1	101 %	5	5	100 %	1 %	70 - 130 % 25%
104-51-8	n-Butylbenzene	5	5	99 %	5	4.9	97 %	2 %	70 - 130 % 25%
96-12-8	1,2-Dibromo-3-chloropropane	5	4.9	98 %	5	5	101 %	3 %	70 - 130 % 25%
120-82-1	1,2,4-Trichlorobenzene	5	4.6	92 %	5	4.5	91 %	1 %	70 - 130 % 25%
87-68-3	Hexachlorobutadiene	5	4.7	94 %	5	4.5	91 %	4 %	70 - 130 % 25%
91-20-3	Naphthalene	5	4.6	91 %	5	4.7	93 %	2 %	70 - 130 % 25%
87-61-6	1,2,3-Trichlorobenzene	5	4.7	95 %	5	4.8	95 %	0 %	70 - 130 % 25%
75-65-0	tert-Butyl Alcohol (TBA)	100	110	110 %	100	130	130 %	16 %	70 - 130 % 25%
108-20-3	Di-isopropyl Ether (DIPE)	5	5.3	106 %	5	4.9	99 %	7 %	70 - 130 % 25%
637-92-3	Ethyl tert-butyl Ether (ETBE)	5	4.6	92 %	5	4.7	93 %	1 %	70 - 130 % 25%
994-05-8	tert-Amyl Methyl Ether (TAME)	5	4.8	96 %	5	4.9	97 %	2 %	70 - 130 % 25%

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery	QC Limits	
Dibromofluoromethane	10	11	113 %	10	11	111 %	70 - 130 %	
1,2-Dichloroethane-d ₄	10	10	102 %	10	10	101 %	70 - 130 %	
Toluene-d ₈	10	10	103 %	10	10	101 %	70 - 130 %	
4-Bromofluorobenzene	10	8.8	88 %	10	8.9	89 %	70 - 130 %	

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

q Recovery outside recommended limits.

GROUNDWATER ANALYTICAL

Quality Control Report Method Blank

Category: EPA Method 8260B
 QC Batch ID: VM7-2542-WB
 Matrix: Aqueous

Instrument ID: MS-7 Agilent 6890
 Analyzed: 07-02-07 11:02
 Analyst: KMC

Page: 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	cis-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	0.5
95-47-6	ortho-Xylene	BRL		ug/L	0.5
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5

GROUNDWATER ANALYTICAL

Quality Control Report Method Blank

Category: **EPA Method 8260B**
 QC Batch ID: **VM7-2542-WB**
 Matrix: **Aqueous**

Instrument ID: **MS-7 Agilent 6890**
 Analyzed: **07-02-07 11:02**
 Analyst: **KMC**

Page 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	n-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	tert-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	sec-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	n-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	120 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	11	107 %	70 - 130 %
Toluene-d ₈	10	10	100 %	70 - 130 %
4-Bromofluorobenzene	10	8.6	86 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

Quality Control Report Laboratory Control Samples

Category: EPA Method 8260B
 QC Batch ID: VM7-2549-WL
 Matrix: Aqueous
 Units: ug/L

LCS
 Instrument ID: MS-7 Agilent 6890
 Analyzed: 07-08-07 04:15
 Analyst: LMG

LCSD
 Instrument ID: MS-7 Agilent 6890
 Analyzed: 07-08-07 04:44
 Analyst: LMG

Page: 1 of 2

CAS Number	Analyte	LCS			LCS Duplicate			QC Limits		
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
75-71-8	Dichlorodifluoromethane	10	8.7	87 %	10	7.8	78 %	11 %	70 - 130 %	25%
74-87-3	Chloromethane	10	10	105 %	10	9.3	93 %	12 %	70 - 130 %	25%
75-01-4	Vinyl Chloride	10	12	117 %	10	11	107 %	8 %	70 - 130 %	25%
74-83-9	Bromomethane	10	10	102 %	10	9.1	91 %	11 %	70 - 130 %	25%
75-00-3	Chloroethane	10	11	109 %	10	9.8	98 %	11 %	70 - 130 %	25%
75-69-4	Trichlorofluoromethane	10	11	114 %	10	10	103 %	10 %	70 - 130 %	25%
60-29-7	Diethyl Ether	20	21	103 %	20	18	92 %	12 %	70 - 130 %	25%
75-35-4	1,1-Dichloroethene	10	11	114 %	10	10	101 %	13 %	70 - 130 %	25%
76-13-1	1,1,2-Trichloro(1-fluoroethane)	20	29	143 % q	20	25	125 %	13 %	70 - 130 %	25%
67-64-1	Acetone	20	18	88 %	20	17	83 %	6 %	70 - 130 %	25%
75-15-0	Carbon Disulfide	20	23	115 %	20	20	100 %	15 %	70 - 130 %	25%
75-09-2	Methylene Chloride	10	11	112 %	10	9.7	97 %	15 %	70 - 130 %	25%
156-60-5	trans-1,2-Dichloroethene	10	11	111 %	10	9.6	96 %	14 %	70 - 130 %	25%
1634-04-4	Methyl tert-butyl Ether (MTBE)	10	10	105 %	10	9.8	98 %	7 %	70 - 130 %	25%
75-34-3	1,1-Dichloroethane	10	12	121 %	10	10	105 %	14 %	70 - 130 %	25%
594-20-7	2,2-Dichloropropane	10	14	135 % q	10	12	119 %	13 %	70 - 130 %	25%
*56-59-2	cis-1,2-Dichloroethene	10	11	111 %	10	9.8	98 %	13 %	70 - 130 %	25%
78-93-3	2-Butanone (MeK)	20	21	107 %	20	17	87 %	20 %	70 - 130 %	25%
74-97-5	Bromochloromethane	10	11	111 %	10	9.8	98 %	12 %	70 - 130 %	25%
109-99-9	Tetrahydrofuran (THF)	20	21	106 %	20	18	92 %	14 %	70 - 130 %	25%
67-66-3	Chloroform	10	12	118 %	10	10	103 %	14 %	70 - 130 %	25%
71-55-6	1,1,1-Trichloroethane	10	11	114 %	10	9.8	98 %	15 %	70 - 130 %	25%
56-23-5	Carbon Tetrachloride	10	12	121 %	10	10	104 %	15 %	70 - 130 %	25%
563-58-6	1,1-Dichloropropene	10	11	111 %	10	9.8	98 %	13 %	70 - 130 %	25%
71-43-2	Benzene	10	11	106 %	10	9.2	92 %	14 %	70 - 130 %	25%
107-06-2	1,2-Dichloroethane	10	12	118 %	10	9.8	98 %	19 %	70 - 130 %	25%
79-01-6	Trichloroethene	10	10	103 %	10	9	90 %	14 %	70 - 130 %	25%
78-87-5	1,2-Dichloropropane	10	11	107 %	10	9.3	93 %	14 %	70 - 130 %	25%
74-95-3	Dibromomethane	10	11	107 %	10	9.6	96 %	12 %	70 - 130 %	25%
75-27-4	Bromodichloromethane	10	11	112 %	10	9.8	98 %	13 %	70 - 130 %	25%
123-91-1	1,4-Dioxane	200	170	87 %	200	160	81 %	7 %	70 - 130 %	25%
10061-01-5	cis-1,3-Dichloropropene	10	10	100 %	10	9	90 %	11 %	70 - 130 %	25%
108-10-1	4-Methyl-2-Pentanone (MIBK)	20	19	97 %	20	18	92 %	5 %	70 - 130 %	25%
108-88-3	Toluene	10	11	110 %	10	9.5	95 %	15 %	70 - 130 %	25%
10061-02-6	trans-1,3-Dichloropropene	10	9	90 %	10	8	80 %	12 %	70 - 130 %	25%
79-00-5	1,1,2-Trichloroethane	10	10	100 %	10	8.8	88 %	12 %	70 - 130 %	25%
127-18-4	Tetrachloroethene	10	9.6	96 %	10	8.2	82 %	15 %	70 - 130 %	25%
142-28-9	1,3-Dichloropropane	10	11	105 %	10	9.3	93 %	13 %	70 - 130 %	25%
591-78-6	2-Hexanone	20	19	93 %	20	17	85 %	9 %	70 - 130 %	25%
124-48-1	Dibromochloromethane	10	10	100 %	10	8.8	88 %	13 %	70 - 130 %	25%
106-93-4	1,2-Dibromoethane (EDB)	10	9.5	95 %	10	8.3	83 %	14 %	70 - 130 %	25%
108-90-7	Chlorobenzene	10	10	100 %	10	8.6	86 %	16 %	70 - 130 %	25%
630-20-6	1,1,2-Tetrachloroethane	10	9.5	95 %	10	8.4	84 %	12 %	70 - 130 %	25%
100-41-4	Ethylbenzene	10	11	105 %	10	9	98 %	16 %	70 - 130 %	25%
108-38-3/106-42-3	meta-Xylene and para-Xylene	20	21	107 %	20	18	91 %	17 %	70 - 130 %	25%
95-47-6	ortho-Xylene	10	10	102 %	10	8.7	87 %	16 %	70 - 130 %	25%
100-42-5	Styrene	10	10	100 %	10	8.4	84 %	17 %	70 - 130 %	25%
75-25-2	Bromoform	10	9.8	98 %	10	8.6	86 %	14 %	70 - 130 %	25%
98-82-8	Isopropylbenzene	10	11	105 %	10	9.3	93 %	13 %	70 - 130 %	25%

Page 63 of 67

GROUNDWATER ANALYTICAL

Quality Control Report Laboratory Control Samples

Category: **EPA Method 8260B**
 QC Batch ID: **VM7-2549-WL**
 Matrix: **Aqueous**
 Units: **ug/L**

LCS
 Instrument ID: **MS-7 Agilent 6890**
 Analyzed: **07-08-07 04:15**
 Analyst: **LMG**

LCSD
 Instrument ID: **MS-7 Agilent 6890**
 Analyzed: **07-08-07 04:44**
 Analyst: **LMG**

Page: **2 of 2**

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
108-86-1	Bromobenzene	10	9.6	96 %	10	8.5	85 %	12 %	70 - 130 %	25%
79-34-5	1,1,2,2-Tetrachloroethane	10	11	114 %	10	10	101 %	12 %	70 - 130 %	25%
96-18-4	1,2,3-Trichloropropane	10	11	114 %	10	9.9	99 %	13 %	70 - 130 %	25%
103-65-1	n-Propylbenzene	10	11	113 %	10	9.8	98 %	14 %	70 - 130 %	25%
95-49-8	2-Chlorotoluene	10	10	103 %	10	9.1	91 %	12 %	70 - 130 %	25%
108-67-8	1,3,5-Trimethylbenzene	10	11	105 %	10	9.3	93 %	13 %	70 - 130 %	25%
106-43-4	4-Chlorotoluene	10	10	102 %	10	9	90 %	13 %	70 - 130 %	25%
98-06-6	tert-Butylbenzene	10	11	109 %	10	9.6	96 %	13 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	10	11	111 %	10	9.6	96 %	14 %	70 - 130 %	25%
135-98-8	sec-Butylbenzene	10	12	115 %	10	10	102 %	13 %	70 - 130 %	25%
541-73-1	1,3-Dichlorobenzene	10	10	100 %	10	8.8	88 %	13 %	70 - 130 %	25%
99-87-6	4-Isopropyltoluene	10	11	112 %	10	9.8	98 %	13 %	70 - 130 %	25%
106-46-7	1,4-Dichlorobenzene	10	9.9	99 %	10	8.7	87 %	12 %	70 - 130 %	25%
95-50-1	1,2-Dichlorobenzene	10	10	101 %	10	8.9	89 %	12 %	70 - 130 %	25%
104-51-8	n-Butylbenzene	10	12	121 %	10	11	106 %	14 %	70 - 130 %	25%
96-12-8	1,2-Dibromo-3-chloropropane	10	9.8	98 %	10	8.8	88 %	11 %	70 - 130 %	25%
120-82-1	1,2,4-Trichlorobenzene	10	9.2	92 %	10	8.3	83 %	10 %	70 - 130 %	25%
87-68-3	Hexachlorobutadiene	10	11	109 %	10	9.6	96 %	13 %	70 - 130 %	25%
91-20-3	Naphthalene	10	9.1	91 %	10	8.4	84 %	8 %	70 - 130 %	25%
87-61-6	1,2,3-Trichlorobenzene	10	9.4	94 %	10	8.3	83 %	12 %	70 - 130 %	25%
75-65-0	tert-Butyl Alcohol (TBA)	200	220	108 %	200	200	98 %	10 %	70 - 130 %	25%
108-20-3	Di-isopropyl Ether (DIPE)	10	11	109 %	10	9.6	96 %	13 %	70 - 130 %	25%
637-92-3	Ethyl tert-butyl Ether (ETBE)	10	9.2	92 %	10	8.2	82 %	12 %	70 - 130 %	25%
994-05-8	tert-Amyl Methyl Ether (TAME)	10	9	90 %	10	8.2	82 %	10 %	70 - 130 %	25%

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery		QC Limits
Dibromofluoromethane	10	11	109 %	10	11	109 %		
1,2-Dichloroethane-d ₄	10	9.6	96 %	10	10	101 %		
Toluene-d ₈	10	9.8	98 %	10	9.8	98 %		
4-Bromoifluorobenzene	10	9.4	94 %	10	9.4	94 %		

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B.

Report Notations: All calculations performed prior to rounding. Quality Control limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

q Recovery outside recommended limits.

GROUNDWATER ANALYTICAL

Quality Control Report Method Blank

Category: **EPA Method 8260B**
 QC Batch ID: **VM7-2549-WB**
 Matrix: **Aqueous**

Instrument ID: **MS-7 Agilent 6890**
 Analyzed: **07-08-07 05:18**
 Analyst: **LMG**

Page 1 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	trans-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	cis-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	cis-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	trans-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	meta-Xylene and para-Xylene	BRL		ug/L	0.5
95-47-6	ortho-Xylene	BRL		ug/L	0.5
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5

GROUNDWATER ANALYTICAL

Quality Control Report Method Blank

Category: **EPA Method 8260B**
 QC Batch ID: **VM7-2549-WB**
 Matrix: **Aqueous**

Instrument ID: **MS-7 Agilent 6890**
 Analyzed: **07-08-07 05:18**
 Analyst: **LMG**

Page 2 of 2

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	n-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	tert-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	sec-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	n-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	tert-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	11	113 %	70 - 130 %
1,2-Dichloroethane-d ₄	10	10	101 %	70 - 130 %
Toluene-d ₈	10	9.8	98 %	70 - 130 %
4-Bromofluorobenzene	10	9.4	94 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
 Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution

GROUNDWATER ANALYTICAL

Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states.
Copies of our current certificates may be obtained from our website:

<http://www.groundwateranalytical.com/qualifications.htm>

CONNECTICUT

Department of Health Services, PH-0586 Potable Water, Wastewater, Solid Waste and Soil
http://www.dph.state.ct.us/BRS/Environmental_Lab/out_state.pdf

FLORIDA

Department of Health, Bureau of Laboratories, E87643 SDWA, CWA, RCRA/CERCLA
<http://www.floridadep.org/labs/qa/dohforms.htm>

MAINE

Department of Health and Human Services, MA0103 Drinking Water and Wastewater
<http://www.maine.gov/dhhs/eng/water/Templates/LabCertification/LabCertification.htm>

Department of Environmental Protection, LB-0072 Asbestos Analytical Laboratory (Bulk)

MASSACHUSETTS

Department of Environmental Protection, M-MA-103 Potable Water and Non-Potable Water
<http://public.dep.state.ma.us/labcert/labcert.aspx>

**Department of Labor,
Division of Occupational Safety, AA000195** Asbestos Analytical Services, Class A
http://www.mass.gov/dos/forms/la-rpt_list_aa.pdf

NEW HAMPSHIRE

Department of Environmental Services, 2027 Drinking Water and Wastewater
<http://www.des.state.nh.us/asp/NHELAP/labsview.asp>

NIST NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP)

NVLAP Lab Code 200751-1 Bulk Asbestos Fiber Analysis (PLM)
<http://ts.nist.gov/Standards/scopes/plmtm.htm>

NEW YORK

Department of Health, 11754 Potable Water, Non-Potable Water and Solid Waste
<http://www.wadsworth.org/labcert/elap/comm.html>

RHODE ISLAND

**Department of Health,
Division of Laboratories, LA000054** Potable and Non-Potable Water Microbiology, Organic and Inorganic Chemistry
<http://www.health.ri.gov/labs/outofstatelabs.pdf>

**Department of Health,
Office of Occupational and Radiological Health, AAI-110B3** Asbestos Analytical Service, Polarized Light Microscopy (PLM)
<http://www.health.ri.gov/environment/occupational/asbestos/licensees/AsbestosAnalyticalLabs.pdf>

U.S. DEPARTMENT OF AGRICULTURE

USDA, Soil Permit, S-53921 Foreign soil import permit

VERMONT

Department of Health, VT87643 Drinking Water Microbiological, Inorganic and Organic Analyses
http://healthvermont.gov/enviro/ph_lab/documents/certified_labs.pdf